SyncMaster 400DX / 460DX

Install Programs | PDF Manuals | Registration

MDC System

Safety Instructions
Introduction
Connections
Using the Software
Adjusting the LCD Display
Troubleshooting
Specifications
Information
Appendix

© 2007 Samsung Electronics Co., Ltd. All rights reserved.

Safety Instructions
Notational
Power
Installation
Clean
Others
Introduction
Connections
Using the Software
Adjusting the LCD Display
Troubleshooting
Specifications
Information
Appendix

Model

SyncMaster

www.samsung.com

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Safety Instructions

Notational

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.

Warning / Caution

Failure to follow directions noted by this symbol could result in bodily harm or damage to the equipment.

Notational Conventions

Prohibited	Important to read and understand at all times
Do not disassemble	Disconnect the plug from the outlet
Do not touch	Ground to prevent an electric shock

Power

When not used for an extended period of time, set your computer to DPM.
If using a screen saver, set it to active screen mode.

The images here are for reference only, and are not applicable in all cases (or countries).

Shortcut to Anti-Afterimage Instructions

Do not use a damaged or loose plug.

- This may cause electric shock or fire.

Do not pull the plug out by the wire nor touch the plug with wet hands.

- This may cause electric shock or fire.

Use only a properly grounded plug and receptacle.

- An improper ground may cause electric shock or equipment damage.(Class I Equipment only.)

Insert the power plug firmly so that it does not come loose.

- A bad connection may cause fire.

Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.

- This may cause electric shock or fire.

Do not connect too many extension cords or plugs to one outlet.

- This may cause fire.

Do not disconnect the power cord while using the LCD Display.

- A surge may be caused by the separation and may damage the LCD Display.

Do not use the power cord when the connector or plug is dusty.

- If the connector or plug of the power cord is dusty, clean it with a dry cloth.
- Using the power cord with a dusty plug or connector may cause electric shock or fire.

To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

- This may cause electric shock or fire.

Installation

Be sure to contact an authorized the Service Center, when installing your LCD Display in a location with heavy dust, high or low temperatures, high humidity, and exposed to chemical substances and where it operates for 24 hours such as at airports, train stations etc.

Failure to do so may cause serious damage to your LCD Display.

Place your LCD Display in a location with low humidity and a minimum of dust.

- Failure to do so may cause electric shock or fire inside the LCD Display.

Do not drop the LCD Display when moving it.

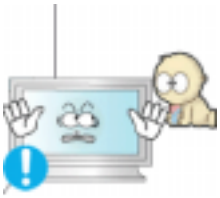
- This may cause damage to the product or the person carrying it.

Install the LCD Display base in a showcase or shelf so that the end of the base does not protrude from the showcase or shelf.

- Dropping the product may cause damage to the product or the person carrying it.

Do not place the product on an unstable or small surface area.

- Place the product on an even and stable surface ,as the product may fall and cause harm to someone walking by, specifically children.



Do not place the product on the floor.

- Take care, as someone, specifically children may trip over it.

TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

- Otherwise, this may cause fire.

Keep any heating devices away from the power cable.

- A melted coating may cause electric shock or fire.

Do not install the product in places with poor ventilation, for instance, a bookshelf, closet, etc.

- Any increase in the internal temperature may cause fire.

Put down the LCD Display carefully.

- Failing to do so may damage the LCD Display.

Do not place the LCD Display face down.

- This may damage the TFT-LCD surface.

The installation of the bracket must be done by a qualified professional.

- Installing the bracket by unqualified personnel may result in injury.
- Always use the mounting device specified in the owner's manual.

When installing the product, make sure to keep it away from the wall (more than 10 cm / 4 inches) for ventilation purposes.

- Poor ventilation may cause an increase in the internal temperature of the product, resulting in a shortened component life and degraded performance.

Keep the plastic packaging (bag) out of children's reach.

- The plastic packaging (bag) may cause suffocation if children play with it.

Clean

When cleaning the LCD Display case or the surface of the TFT-LCD screen, wipe with a slightly moistened, soft fabric.

Do not spray water or detergent directly onto the LCD Display.

- This may cause damage, electric shock or fire.

Use the recommended detergent with a smooth cloth.

If the connector between the plug and the pin is dusty or dirty, clean it properly using a dry cloth.

- A dirty connector may cause electric shock or fire.

Make sure to unplug the power cord before cleaning the product.

- Otherwise, this may cause electric shock or fire.

Unplug the power cord from the power outlet and wipe the product using a soft, dry cloth.

- Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent.

Others

Do not remove the cover (or back).

- This may cause electric shock or fire.
- Refer to a qualified servicing company.

If your LCD Display does not operate normally - in particular, if there is any unusual sound or smell coming from the LCD Display - unplug it immediately and contact an authorized dealer or the Service Center.

- This may cause electric shock or fire.

Keep the product away from places exposed to oil, smoke or moisture; do not install inside a vehicle.

- This may cause a malfunction, electric shock or fire.
- In particular, avoid operating the LCD Display near water or outdoors where the LCD Display could be exposed to snow or rain.

If the LCD Display is dropped or the casing is damaged, turn the LCD Display off and unplug the power cord. Then contact the Service Center.

- The LCD Display may malfunction, causing electric shock or fire.

Disconnect the plug from the outlet during storms or lightning or if it is not used for a long period of time.

- Failure to do so may cause electric shock or fire.

Do not try to move the LCD Display by pulling only the wire or the signal cable.

- This may cause a breakdown, electric shock or fire due to damage to the cable.

Do not move the LCD Display right or left by pulling only the wire or the signal cable.

- This may cause a breakdown, electric shock or fire due to damage to the cable.

Do not cover the vents on the LCD Display cabinet.

- Bad ventilation may cause a breakdown or fire.

Do not place water containers, chemical products or small metal objects on the LCD Display.

- This may cause a malfunction, electric shock or fire.
- If a foreign substance enters the LCD Display , unplug the power cord and contact the Service Center.

Keep the product away from combustible chemical sprays or inflammable substances.

- This may cause an explosion or fire.

Never insert anything metallic into the LCD Display openings.

- This may cause electric shock, fire or injury.

Do not insert metal objects such as chopsticks, wire and tools or inflammable objects such as paper or matches into the vent, headphone port or AV ports or etc.

- This may cause electric shock or fire. If an alien substances or water enters the product, turn the product off, unplug the power connector from the wall

outlet and contact the Service Center.

When viewing a fixed screen for an extended period of time, residual image or blurriness may appear.

- Change the mode to energy saving mode or set a screensaver to a changing picture when away from the LCD Display for an extended period of time.

Adjusts the resolution and frequency to the level appropriate for the model.

- An inappropriate resolution may cause undesirable picture quality.

  40 inch (101 cm) - 1360 X 768
  46 inch (116 cm) - 1360 X 768

Viewing the LCD Display continuously at a too close angle may result in damage to your eyesight.

To ease eye strain, take at least a five-minute break after every hour of using the LCD Display.

Do not install the product on an unstable, uneven surface or a location prone to vibrations.

- Dropping the product may cause damage to the product or the person carrying it. Using the product in a location prone to vibrations may shorten the lifetime of the product or may cause the product to catch fire.

When moving the LCD Display , turn off and unplug the power cord. Make sure that all cables, including the antenna cable and cables connected to other devices, are disconnected before moving the LCD Display.

- Failure to disconnect cables may damage it and cause fire or electric shock.

Make sure there are more than two people when moving the product.

- Dropping the product may cause a malfunction or injury to the person carrying it.

Place the product out of children’s reach, as they could damage by hanging onto it.

- A falling product may cause injury to the person or even fatality.

When not using the product for an extended period of time, keep the product unplugged.

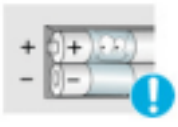
- Otherwise, this may cause heat emission from the accumulated dirt or degraded insulation, causing electric shock or fire.

Do not place your children's favorite toys or any other objects of interest on the product.

- Children may try to climb on the product to retrieve an object. The product could fall, causing injury or even fatality.

When removing batteries from the remote control, be careful that they are not swallowed by children. keep the batteries out of children's reach.

- If the batteries are swallowed, see a doctor immediately.



When replacing batteries, place the batteries in the correct +/- polarity position as indicated on the battery holder.

- The incorrect polarity may cause a battery to break or leak and may cause fire, injury, or contamination (damage).

Use only specified standard batteries. Do not use new and used batteries together.

- This may cause a battery to break or leak and may cause fire, injury, or contamination (damage).

The batteries (and rechargeable batteries) is not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling purposes as the consumer.

- The customer can return used or rechargeable batteries to a nearby public

recycling center or to a store selling the same type of the battery or rechargeable battery.

© 1995~2007 SAMSUNG. ALL Rights Reserved

Safety Instructions
Introduction
Package Contents
Your LCD Display
Machanical Layout
Connections
Using the Software
Adjusting the LCD Display
Troubleshooting
Specifications
Information
Appendix

Model

SyncMaster

www.samsung.com

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Introduction

Package Contents

Note

- Please make sure the following items are included with your LCD Display.

  If any items are missing, contact your dealer.
  Contact a local dealer to buy optional items.

Note

- This stand is not for the Floor Standing Type.

LCD Display

Manuals

Quick Setup Guide

Warranty Card
(Not available in all locations)

User's Guide, MDC Software

Cables

D-Sub Cable

Power Cord

Other

Remote Control

Batteries (AAA X 2)
(Not available in all locations)

Cover-Hole

BNC to RCA Adaptor Jack

Semi Stand

Screw: 4 EA

Sold separately

Wall Mount KIT

Speaker Set

DVI Cable

BNC Cable

Your LCD Display

- **Front**

1) **MENU**

Opens the on-screen menu and exits from the menu or closes the adjustment menu.

2) **Navigate buttons (Up-Down buttons)**

Moves from one menu item to another vertically or adjusts selected menu values.

3) **Adjust buttons (Left-Right buttons)/ Volume buttons**

Moves from one menu item to another horizontally or adjusts selected menu values.
Adjusts the audio volume.

4) **ENTER**

Activates a highlighted menu item.

5) **SOURCE**

Switches from PC mode to Video mode.
Changing the source is only allowed for external devices that are connected to the LCD Display at the time.
[PC] → [BNC] → [DVI] → [AV] → [S-Video] → [Component] → [HDMI]
>> Click here to see an animation clip.

6) **PIP**

Push the PIP button to turn the PIP screen On / Off.
More than one PIP cannot overlap on screen as BNC and the component use the same terminal.
>> Click here to see an animation clip.

- **PC**
  AV / S-Video / Component / HDMI Mode
- **BNC**
  AV / S-Video / HDMI Mode
- **DVI**
  AV / S-Video / Component Mode
- **AV / S-Video**
  PC / BNC / DVI Mode
- **Component**
  PC / DVI Mode
- **HDMI**
  PC / BNC Mode

7) **Power button**

Turns the LCD Display On/Off.

8) **Brightness Sensor**

The product's Brightness Sensor function automatically detects the surrounding brightness using a brightness sensor and adjusts its brightness accordingly.

9) **Power indicator**

Shows PowerSaver mode by blinking green.

10) **Remote Control Sensor**

Aim the remote control towards this spot on the LCD Display.

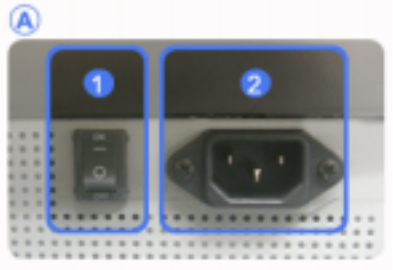
Note

- See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your LCD Display OFF when it is not needed or when leaving it unattended for long periods.

Rear

Note

- For detailed information concerning cable connections, refer to Connecting Cables under Setup. The LCD Display 's configuration at the back may vary slightly depending on the LCD Display model.

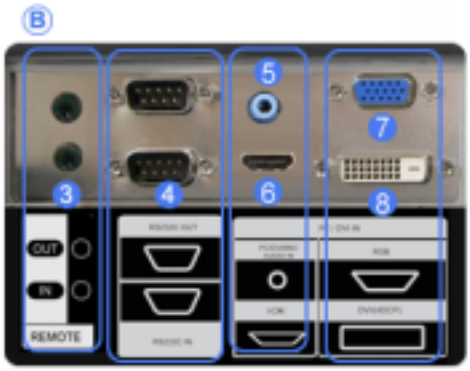


1) **POWER S/W ON [|] / OFF [O]**

Switches the LCD Display On/Off.

2) **POWER IN**

The power cord plugs into the LCD Display and the wall plug.



3) **REMOTE OUT/IN**

You can use a wired remote control by connecting it to your monitor.

4) **RS232C OUT/IN (RS232C Serial PORT)**

MDC(Multiple Display Control) Program Port

5) **DVI / PC / HDMI IN [PC/DVI/BNC AUDIO IN] (PC/DVI/BNC/HDMI Audio Connection Terminal (Input))**

6) **DVI / PC / HDMI IN [HDMI]**

Connect the HDMI IN terminal at the back of your monitor to the HDMI terminal of your digital output device using a HDMI cable.

7) **DVI / PC / HDMI IN [RGB] (PC Video Connection Terminal)**

Using a D-Sub Cable (15 pin D-Sub) - PC mode (Analog PC)

8) **DVI / PC / HDMI IN [DVI(HDCP)] (PC Video Connection Terminal)**

Using a DVI Cable (DVI-D to DVI-D) - DVI mode (Digital PC)

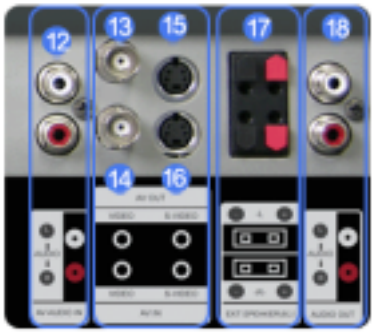
9) **COMPONENT AUDIO IN [L-AUDIO-R] (Component Audio Connection Terminal (Input))**

10) **BNC/COMPONENT OUT [R/PR, G/Y, B/PB, H, V] (BNC/Component Connection Terminal (Output))**

BNC (Analog PC) Connection: connecting the R, G, B, H, V ports
Component Connection: connecting the PR, Y, PB ports

11) **BNC/COMPONENT IN [R/PR, G/Y, B/PB, H, V] (BNC/Component Connection Terminal (Input))**

D



12) **AV AUDIO IN [L-AUDIO-R] (LCD Display Audio Connection Terminal (Input))**

13) **AV OUT [VIDEO] (VIDEO Connection Terminal): AV mode (Output)**

14) **AV IN [VIDEO] (VIDEO Connection Terminal) (Input)**

15) **AV OUT [S-VIDEO] (S-VIDEO Connection Terminal): S-VIDEO mode (Output)**

16) **AV IN [S-VIDEO] (S-VIDEO Connection Terminal) (Input)**

17) **EXT SPEAKER(8 Ω)[- - L - +, - - R - +] (EXT Speaker Connection Terminal)**

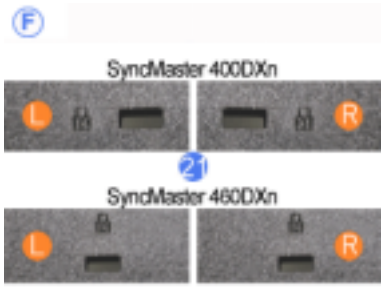
18) **AUDIO OUT [L-AUDIO-R] (LCD Display Audio Connection Terminal (Output))**

AUDIO OUT is the terminal for sound output of PC, DVI or BNC.

☑ Note

- The number of LCD Displays that can be connected to loopout may differ depending on the cables, signal source etc. With cables where there is no degradation or signal source, up to ten LCD Displays can be connected.

F



19) **Kensington Lock**

The Kensington lock is a device used to physically fix the system to something when using it in a public place. (The locking device has to be purchased separately.)
For using a locking device, contact the place of purchase.

☑ Note

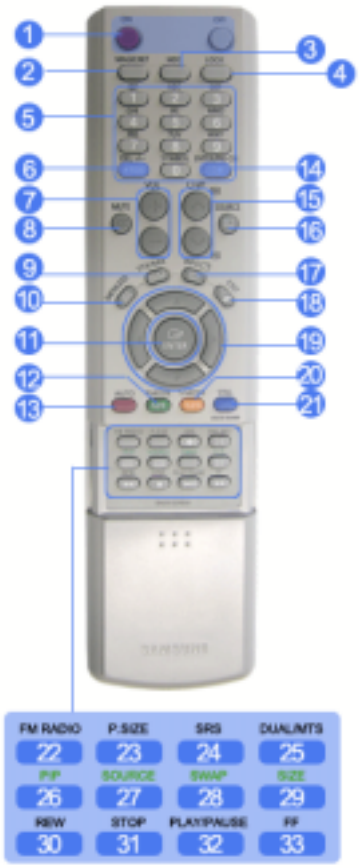
- See Connecting the LCD Display for further information regarding cable connections.

Remote Control

☑ Note

- The performance of the remote control may be affected by a TV or other electronic device operating near the LCD Display , causing a malfunction due to interference with the frequency.

1. ON / OFF
2. MAGICNET
3. MDC
4. LOCK
5. MagicNet buttons
6.+100 -/--
7. VOL
8. MUTE
9. TTX/MIX
10. MENU
11. ENTER
12. P.MODE
13. AUTO
14. ENTER/PRE-CH
15 . CH/P
16. SOURCE
17. INFO
18. EXIT
19. Up-Down Left-Right buttons
20. S.MODE
21. STILL



22. FM RADIO
23. P.SIZE
24. SRS
25. DUAL/MTS
26. PIP
27. SOURCE
28. SWAP
29. SIZE
30. REW
31. STOP
32. PLAY/PAUSE
33. FF

1) **ON / OFF**

Turns the LCD Display On/Off.

2) **MAGICNET**

MagicNet Quick Launch Button.

3) **MDC**

MDC Quick Launch Button.

4) **LOCK**

Activates or deactivates all function keys on both the remote control and the LCD Display except for the Power and LOCK buttons.

5) **MagicNet buttons**

Used for MagicNet.

- Alphanumeric: Used to enter the Internet address.
- DEL: Functions as the backspace.
- SYMBOL: Used to enter the symbols. (.O_-)
- ENTER: Used to enter values.

6) **+100 -/--**

Press to select channels over 100.
For example, to select channel 121, press "+100", then press "2" and "1".
- This fuction does not work for this monitor.

7) **VOL**

Adjusts the audio volume.

8) **MUTE**

Pauses (mutes) the audio output temporarily.
This is displayed on the lower left corner of the screen.
The audio resumes if MUTE or - VOL + is pressed in the Mute mode.

9) **TTX/MIX**

TV channels provide text information services via teletext.
- This fuction does not work for this monitor.

10) **MENU**

Opens the on-screen menu and exits from the menu screen or closes the screen adjustment menu.

11) **ENTER**

Activates a highlighted menu item.

12) **P.MODE**

When you press this button, current picture mode is displayed on the lower center of the screen.

AV / S-Video / Component : P.MODE
The Monitor has four automatic picture settings that are preset at the factory.
Then push button again to circle through available preconfigured modes.
(Dynamic → Standard → Movie → Custom)

PC/DVI/BNC : M/B (MagicBright™)
MagicBright™ is a new feature providing the optimum viewing environment depending on the contents of the image you are watching.
Then push button again to circle through available preconfigured modes.
(Entertain → Internet → Text → Custom)

13) **AUTO**

Adjusts the screen display automatically in PC mode.
By changing the resolution in the control panel, auto function is performed.

14) **ENTER/PRE-CH**

Returns to the immediately previous channel.
- This fuction does not work for this monitor.

15) **CH/P**

In TV mode, selects TV channels.
- This fuction does not work for this monitor.

16) **SOURCE**

Changes the video source.

17) **INFO**

The current picture information is displayed in the top left corner of the screen.

18) **EXIT**

Exits from the menu screen.

19) **Up-Down Left-Right buttons**

Moves from one menu item to another horizontally, vertically or adjusts selected menu values.

20) **S.MODE**

When pressing this button, the current mode is displayed at the bottom centre of the screen.
The LCD Display has a built-in high fidelity stereo amplifier.
Then press the button again to circle through available preconfigured modes.
(Standard → Music → Movie → Speech → Custom)

21) **STILL**

Press the button once to freeze the screen. Press it again to unfreeze.

22) **FM RADIO**

Turns the FM Radio on/off.
In PC/DVI mode, sets the SOUND to FM Radio.
In general Video mode, selects FM Radio, and turns off the screen.
In areas where the signal is weak, noise may occur during FM radio broadcasts.
- This fuction does not work for this monitor.

23) **P.SIZE**

Press to change the screen size.

24) **SRS**

SRS

25) **DUAL/MTS**

DUAL-

STEREO/MONO, DUAL I / DUAL II and MONO/NICAM MONO/NICAM STEREO can be operated depending on the broadcasting type by using the DUAL button on the remote control while watching TV.

MTS-

You can select MTS (Multichannel Television Stereo) mode.

	Audio Type	MTS/S_Mode	Default
FM Stereo	Mono	Mono	Manual Change
	Stereo	Mono ↔ Stereo	
	SAP	Mono ↔ SAP	Mono

- This fuction does not work for this monitor.

26) **PIP**

Every time you press the button, a PIP screen appears.

27) **SOURCE**

Changes the source of the PIP window signal.

28) **SWAP**

Swaps the contents of the PIP and main image.
The image in the PIP window will appear on the main screen, and the main screen image will appear in the PIP window.

29) **SIZE**

Switches the PIP Picture Size.

30) **REW**

Rewind

31) **STOP**

Stop

32) **PLAY / PAUSE**

Play/Pause

33) **FF**

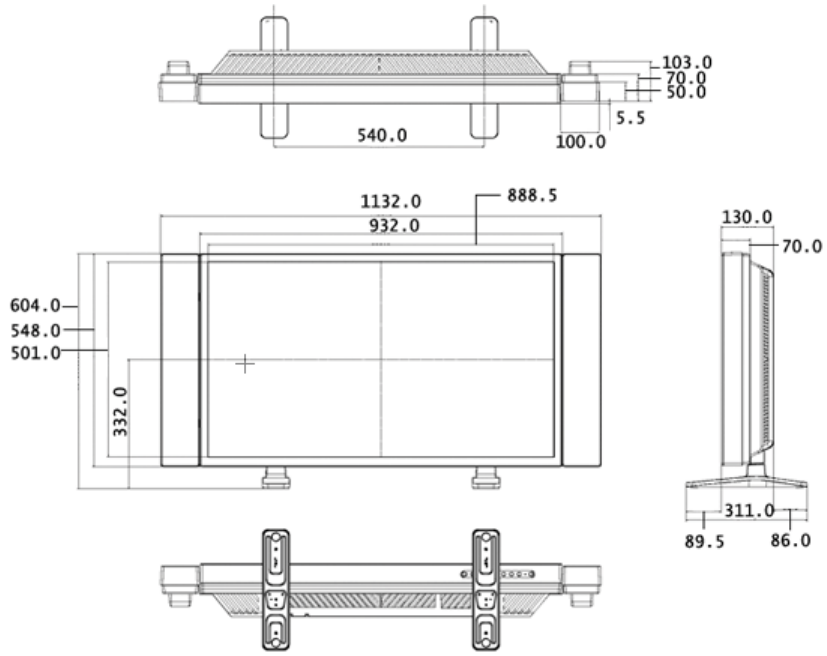
Fast forward

© 1995~2007 SAMSUNG. ALL Rights Reserved

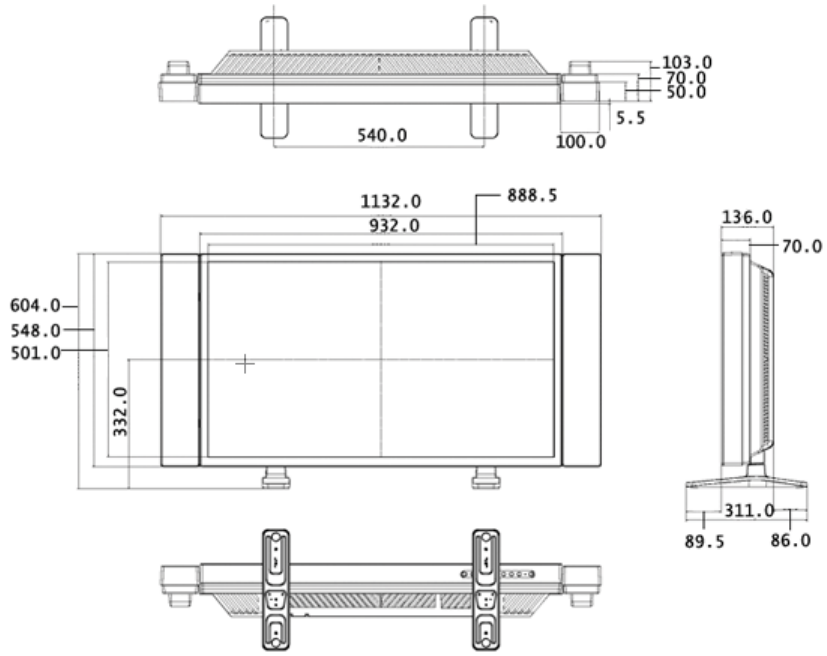
SyncMaster 400DX

1. Mechanical Layout

NETWORK MODEL SIZE



PROTECTION GLASS + NETWORK MODEL SIZE



Weight

- Set
  - 25.0 kg (with Basic Stand)
  - 30.5 kg (with Basic Stand / option protection glass)
- Package

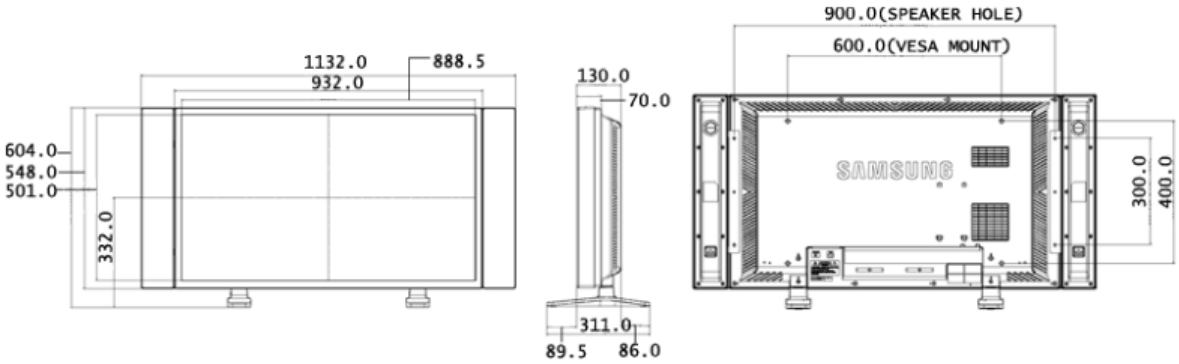
- 28.5 kg (with Basic Stand)
- 34.0 kg (with Basic Stand / option protection glass)

▲ Up

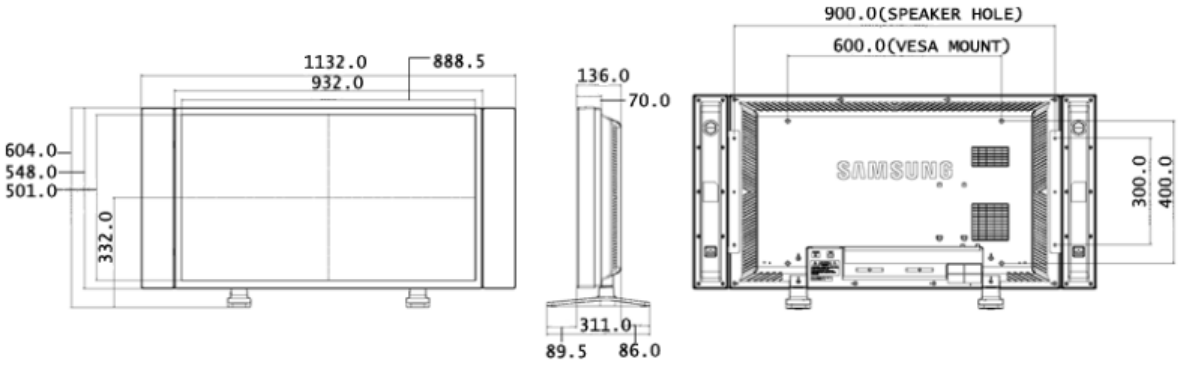
---

2. Monitor Head

NETWORK MODEL SIZE

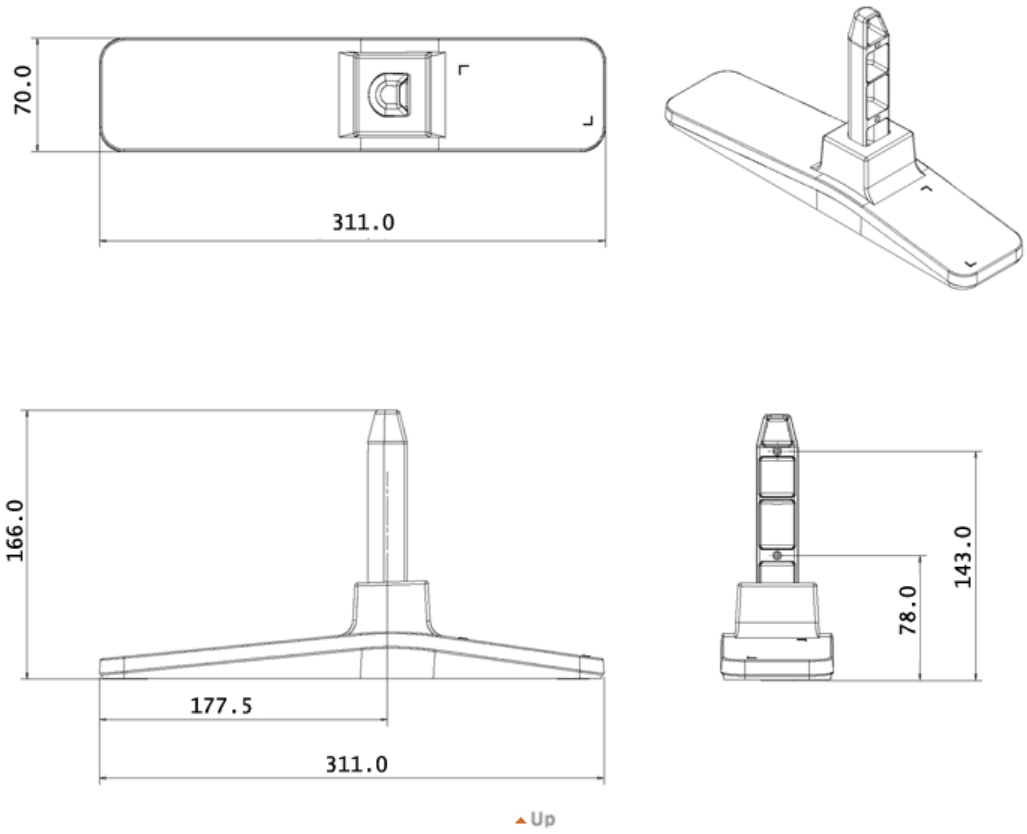


PROTECTION GLASS + NETWORK MODEL SIZE

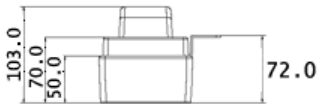


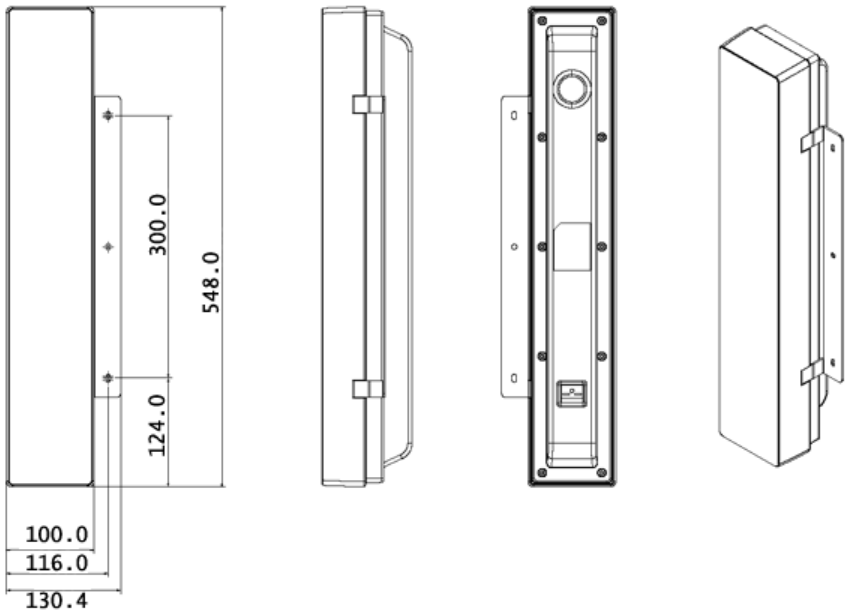
---

3. Stand



4. Speaker





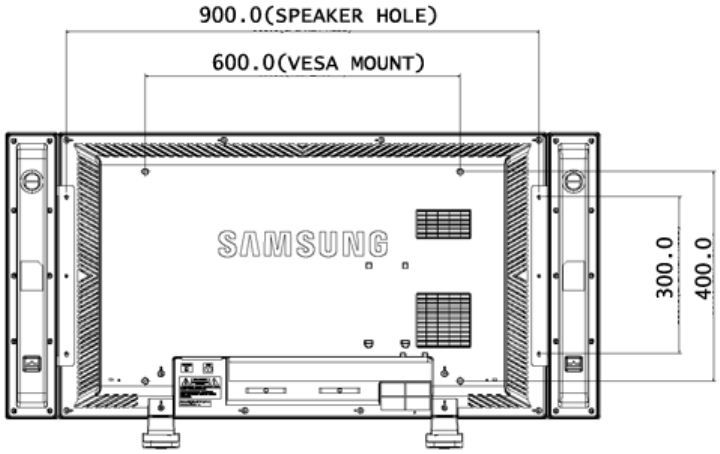
Up

---

5. Installation VESA Bracket

- When installing VESA, make sure to comply with the international VESA standards.
- Purchasing VESA Bracket and Installation Information : Please contact your nearest Samsung Distributor to place an order. After your order is placed, installation professionals will visit you and install the bracket.
- At least 2 persons are needed in order to move the LCD Monitor.
- Samsung is not responsible for any product damage or any injury caused by installation at customer's discretion.

Dimensions



For securing the bracket on a wall, use only machine screws of 6 mm diameter and 8 to 12 mm length.

Up

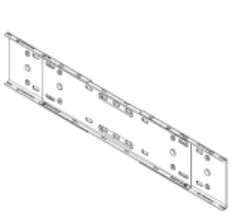
6. Wall Bracket Installation

- Contact a technician for installing the wall bracket.
- Samsung Electronics is not responsible for any damages to the product or harm to customers when the installation is done by the customer.
- This product is for installing on cement walls. The product may not stay in place when installed on plaster or wood.

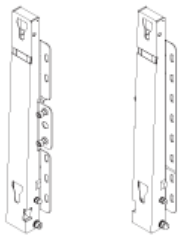
Components

Only use the components and accessories shipped with the product.

`



Wall Bracket
(1)



Hinge
(Left 1, Right 1)

Plastic Hanger
(4)

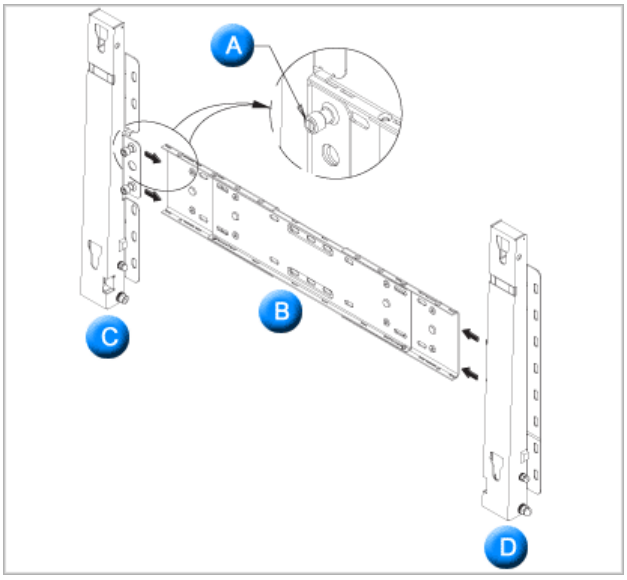
Screw(**A**)
(11)

Screw(**B**)
(4)

Anchor
(11)

Wall Bracket Assembly

1



Insert and tighten the Captive Screw in the direction of the arrow.
When done, mount the wall bracket on the wall.

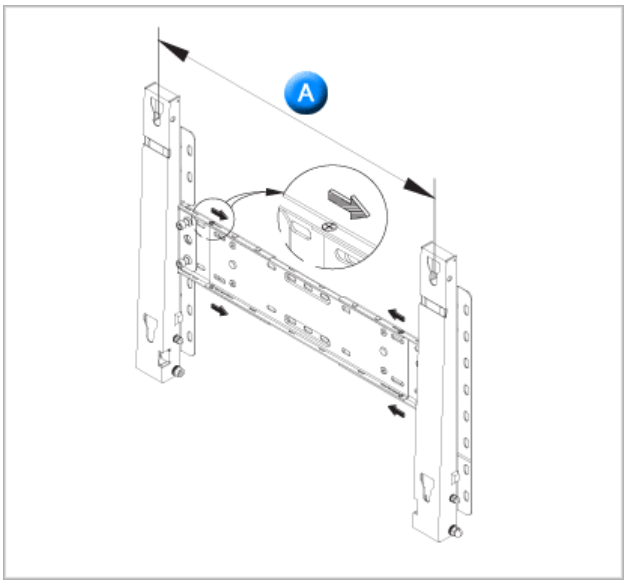
A. Captive Screw
B. Wall Bracket
C. Hinge (Left)
D. Hinge (Right)

There are two hinges(left and right). Use the correct one.

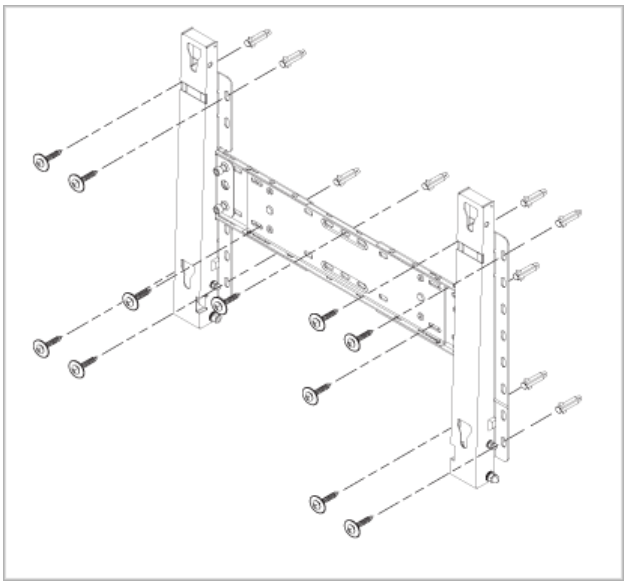
2

Before drilling into the wall, check if the length between the two locking holes at the back of the product is correct.
If the length is too short or long, loosen all or some of the 4screws on the wall bracket to adjust the length.

A. Length between the two locking holes



3

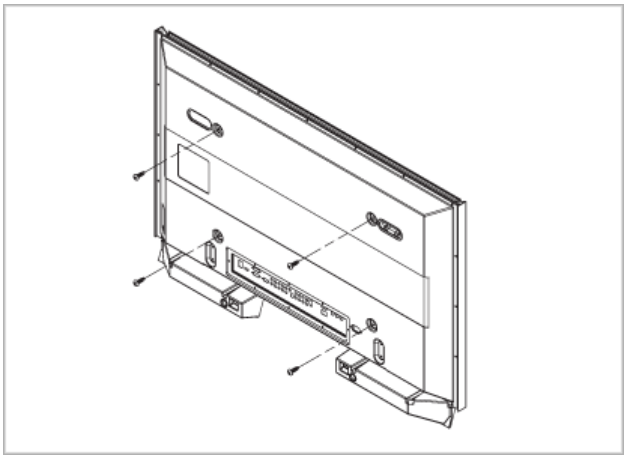


Check the installation diagram and mark the drill points on the wall. Use the 5.0 mm bit to drill holes deeper than 35 mm. Fix each anchor in the corresponding hole.
Match each of the brackets and hinge holes to the corresponding anchor holes and insert and tighten the 11 screws **A**.

To mount the product on the wall bracket

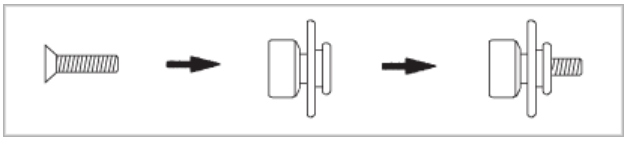
The shape of the product may vary depending on the model. (The assemblies of the plastic hanger and the screw are the same)

1



Remove the 4 screws on the back of the product.

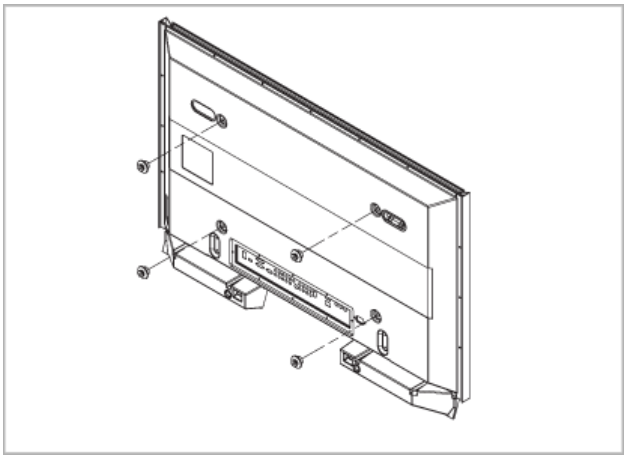
2



Insert the screw **B** into the plastic hanger.

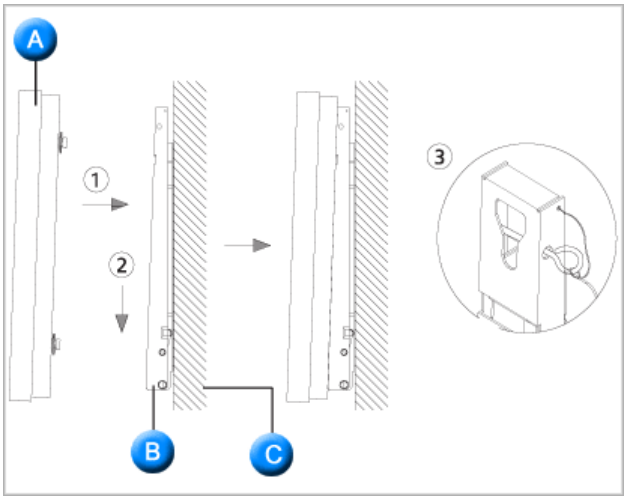
1. Mount the product on the wall bracket and make sure it is properly fixed to the left and right plastic hangers.
2. Be careful when installing the product on the bracket as fingers can be caught in the holes.
3. Make sure the wall bracket is securely fixed to the wall, or the product may not stay in place after installation.

3



Tighten the 4 screws in step 2 (plastic hanger + screw **B**)to the rear holes of the product.

4

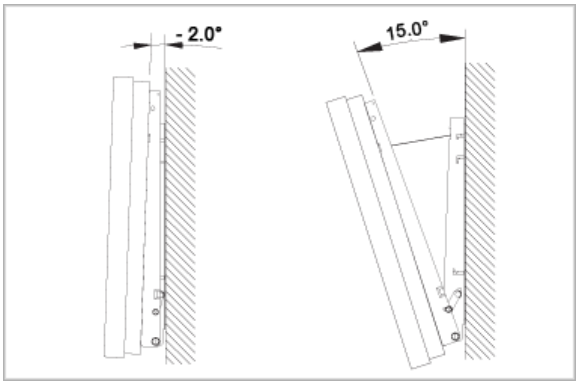


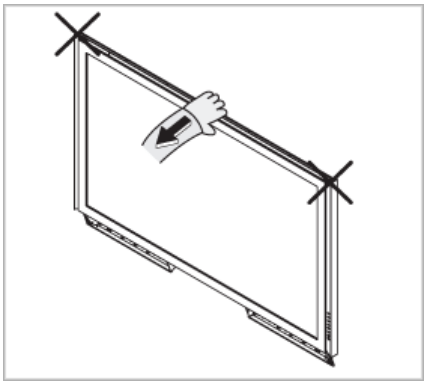
Remove safety pin (**3**) and insert the 4 product holders into the corresponding bracket holes (**1**). Then place the product(**2**) so that it is firmly fixed to the bracket. Make sure to re-insert and tighten the safety pin (**3**) to securely hold the product to the bracket.

A. Monitor
B. Wall Bracket
C. Wall

Wall Bracket Angle Adjustment

Adjust the bracket angle to -2°before installing it on the wall.





1. Fix the product to the wall bracket.
2. Hold the product at the top in the center and pull it forward (direction of the arrow) to adjust the angle.
3. You can adjust the bracket angle between -2°and 15 °.

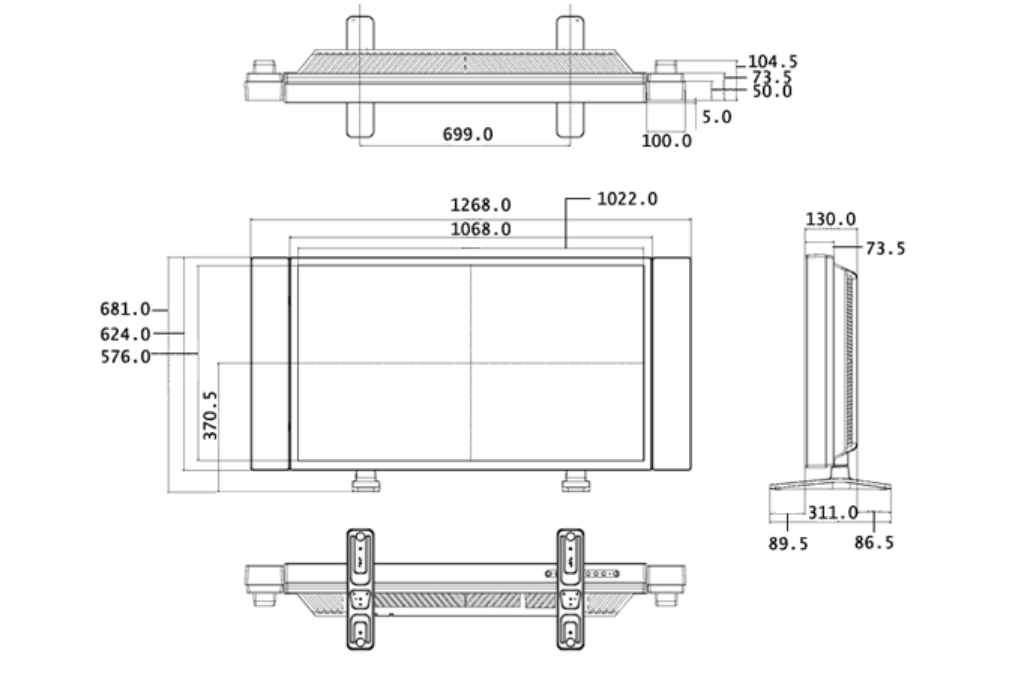
Make sure to use the top center, and not the leftor the right side of the product to adjust the angle.

Up

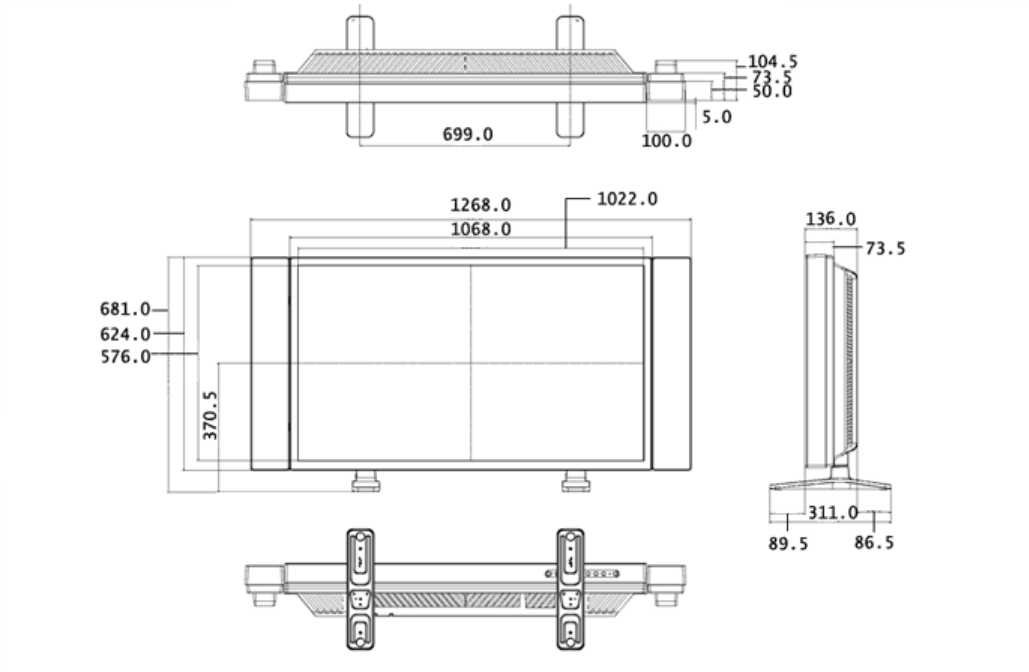
SyncMaster 460DX

1. Mechanical Layout

NETWORK MODEL SIZE



PROTECTION GLASS + NETWORK MODEL SIZE



Weight

- Set
  - 31.30 kg (with Basic Stand)
  - 36.1 kg (with Basic Stand / option protection glass)
- Package

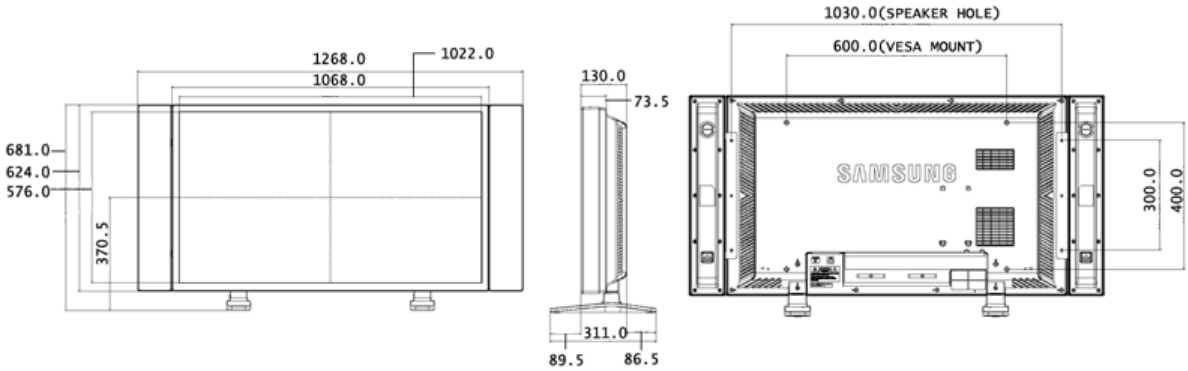
- 37.6 kg (with Basic Stand)
- 42.4 kg (with Basic Stand / option protection glass)

▲ Up

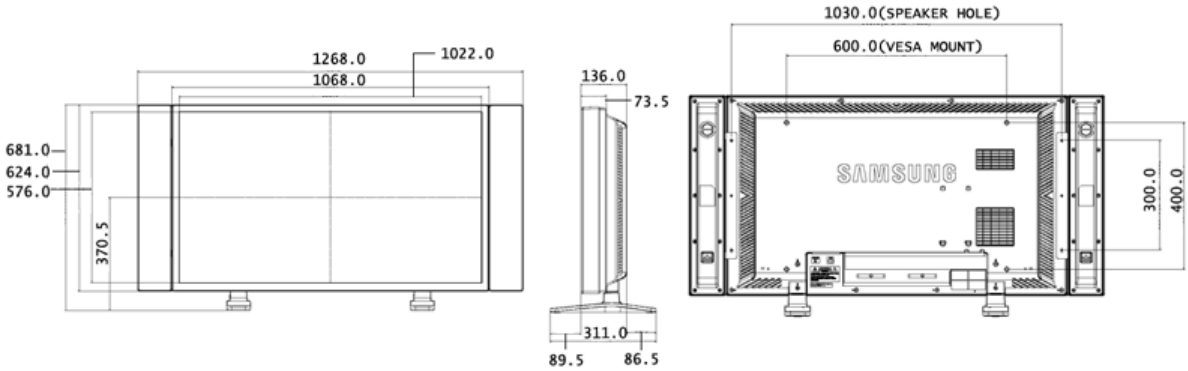
---

2. Monitor Head

NETWORK MODEL SIZE

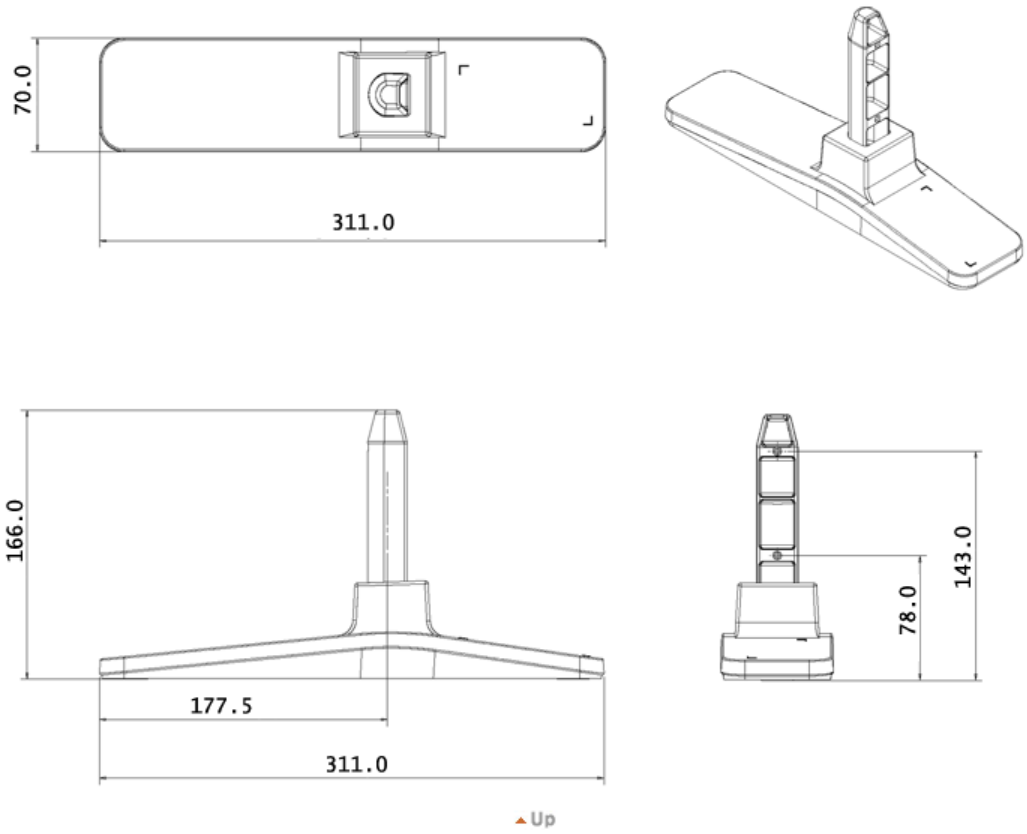


PROTECTION GLASS + NETWORK MODEL SIZE

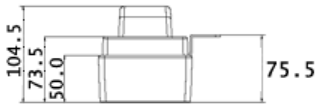


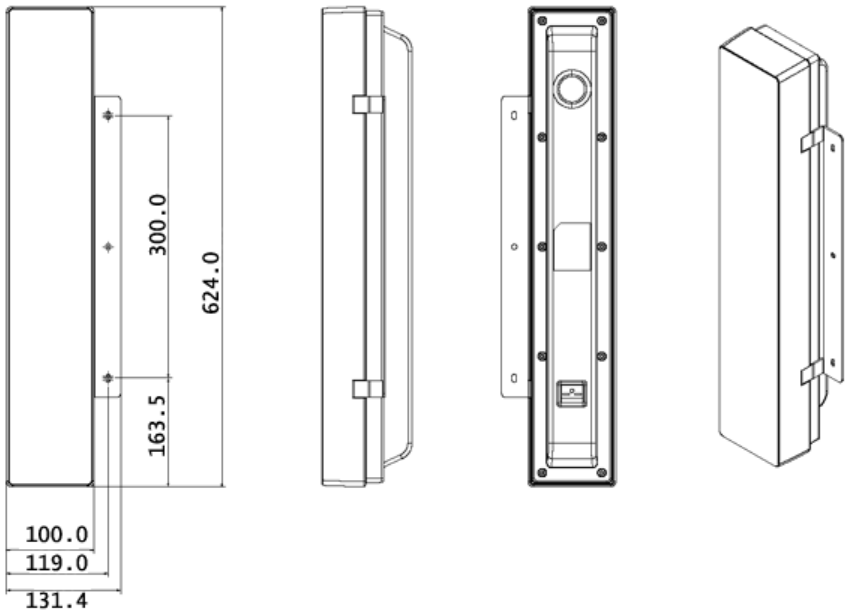
---

3. Stand



4. Speaker



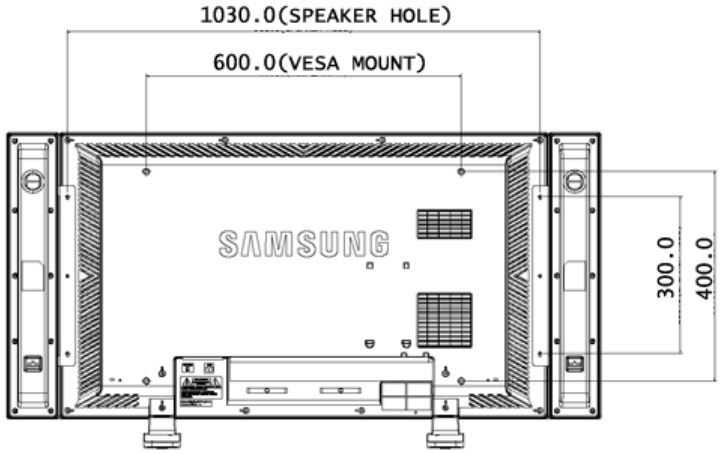


Up

5. Installation VESA Bracket

- When installing VESA, make sure to comply with the international VESA standards.
- Purchasing VESA Bracket and Installation Information : Please contact your nearest Samsung Distributor to place an order. After your order is placed, installation professionals will visit you and install the bracket.
- At least 2 persons are needed in order to move the LCD Monitor.
- Samsung is not responsible for any product damage or any injury caused by installation at customer's discretion.

Dimensions



For securing the bracket on a wall, use only machine screws of 6 mm diameter and 8 to 12 mm length.

Up

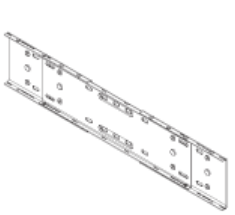
6. Wall Bracket Installation

- Contact a technician for installing the wall bracket.
- Samsung Electronics is not responsible for any damages to the product or harm to customers when the installation is done by the customer.
- This product is for installing on cement walls. The product may not stay in place when installed on plaster or wood.

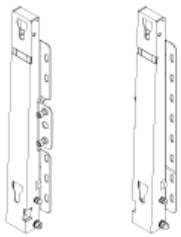
Components

Only use the components and accessories shipped with the product.

`



Wall Bracket
(1)



Hinge
(Left 1, Right 1)

Plastic Hanger
(4)

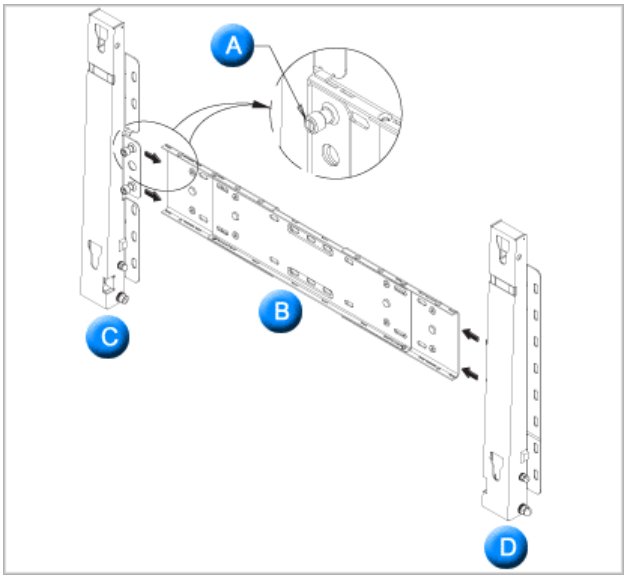
Screw(**A**)
(11)

Screw(**B**)
(4)

Anchor
(11)

Wall Bracket Assembly

1



Insert and tighten the Captive Screw in the direction of the arrow.
When done, mount the wall bracket on the wall.

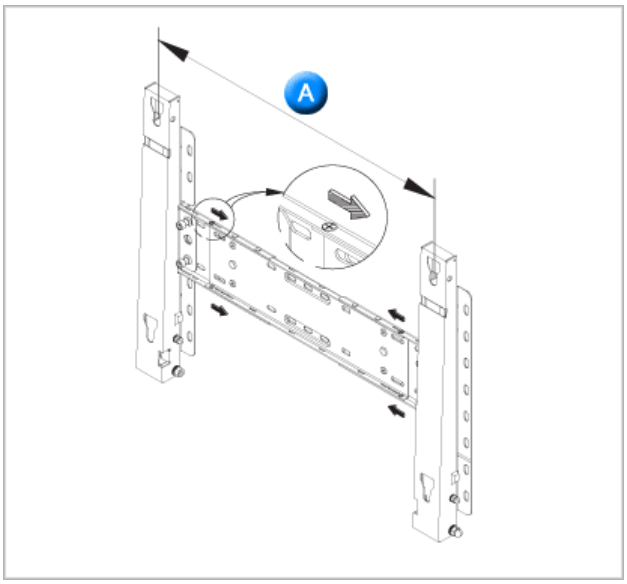
A. Captive Screw
B. Wall Bracket
C. Hinge (Left)
D. Hinge (Right)

There are two hinges(left and right). Use the correct one.

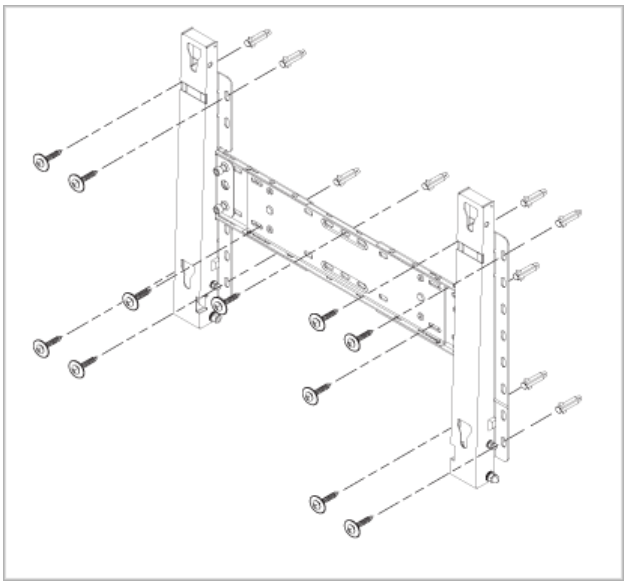
2

Before drilling into the wall, check if the length between the two locking holes at the back of the product is correct.
If the length is too short or long, loosen all or some of the 4screws on the wall bracket to adjust the length.

A. Length between the two locking holes



3

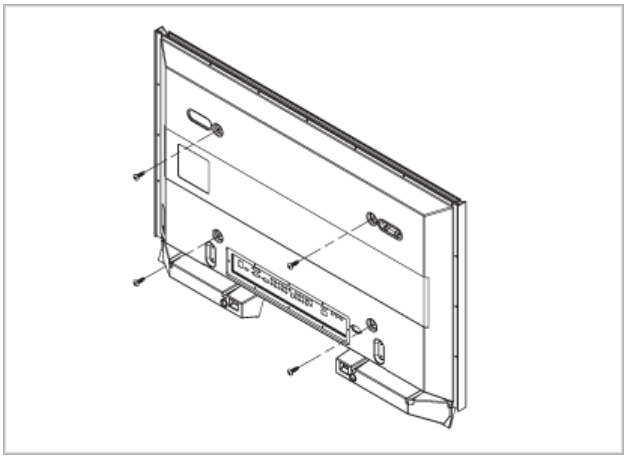


Check the installation diagram and mark the drill points on the wall. Use the 5.0 mm bit to drill holes deeper than 35 mm. Fix each anchor in the corresponding hole.
Match each of the brackets and hinge holes to the corresponding anchor holes and insert and tighten the 11 screws **A**.

To mount the product on the wall bracket

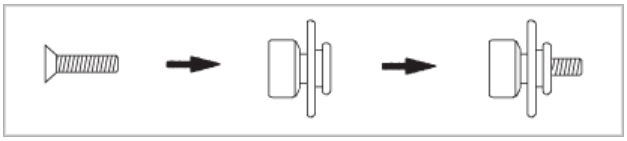
The shape of the product may vary depending on the model. (The assemblies of the plastic hanger and the screw are the same)

1



Remove the 4 screws on the back of the product.

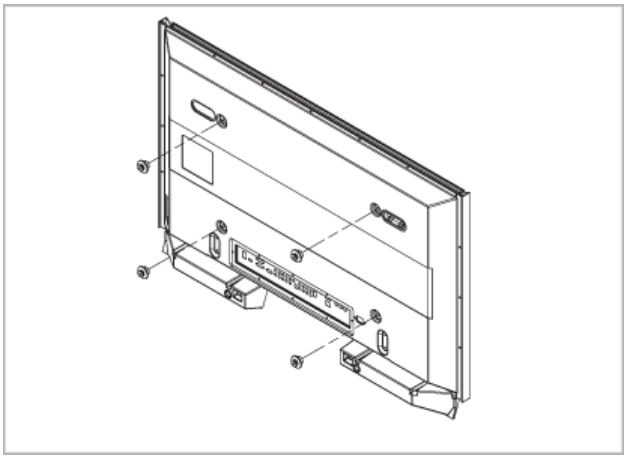
2



Insert the screw **B** into the plastic hanger.

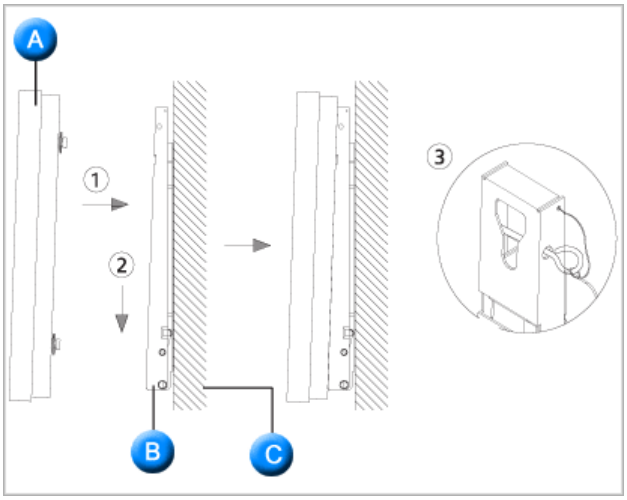
1. Mount the product on the wall bracket and make sure it is properly fixed to the left and right plastic hangers.
2. Be careful when installing the product on the bracket as fingers can be caught in the holes.
3. Make sure the wall bracket is securely fixed to the wall, or the product may not stay in place after installation.

3



Tighten the 4 screws in step 2 (plastic hanger + screw **B**)to the rear holes of the product.

4

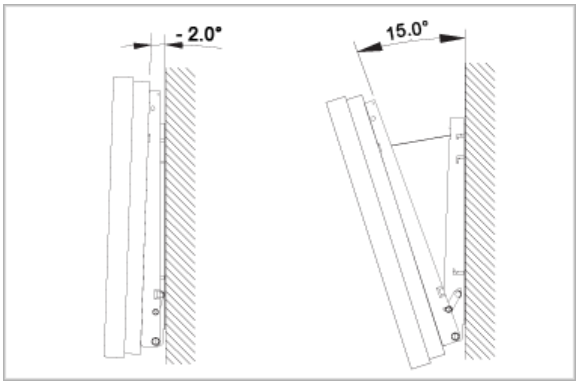


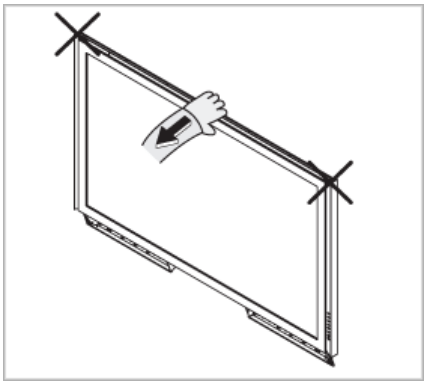
Remove safety pin (**3**) and insert the 4 product holders into the corresponding bracket holes (**1**). Then place the product(**2**) so that it is firmly fixed to the bracket. Make sure to re-insert and tighten the safety pin (**3**) to securely hold the product to the bracket.

A. Monitor
B. Wall Bracket
C. Wall

Wall Bracket Angle Adjustment

Adjust the bracket angle to -2°before installing it on the wall.





1. Fix the product to the wall bracket.
2. Hold the product at the top in the center and pull it forward (direction of the arrow) to adjust the angle.
3. You can adjust the bracket angle between -2°and 15 °.

Make sure to use the top center, and not the leftor the right side of the product to adjust the angle.

Up

Safety Instructions
Introduction
Connections
Installing the Stand KIT
Connecting the LCD Display
Using the Software
Adjusting the LCD Display
Troubleshooting
Specifications
Information
Appendix

Model

SyncMaster

www.samsung.com

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Connections

Installing the Stand KIT

☑ Note

- Only the supplied bolts should be used.

⚠ Caution

Samsung Electronics will not be responsible for damages caused by using a base other than those specified.

Installing the Semi Stand

Left stand **Right stand**

⚠ Caution

Make sure to install the stand with the Caution label folded backwards.

1) To protect your product, a Cover Hole is included as an accessory. This protects the hole at the bottom of the monitor where the stand is inserted. If you install a wall mount kit for your monitor, please place the Cover Hole over it.

2) Insert it into the hole at the bottom of the monitor. Insert the screw provided with the Cover Hole into the marked place and fasten it firmly.

⚠ Caution

The resolution may differ for each product model. For information on the optimal resolution, refer to the user manual.

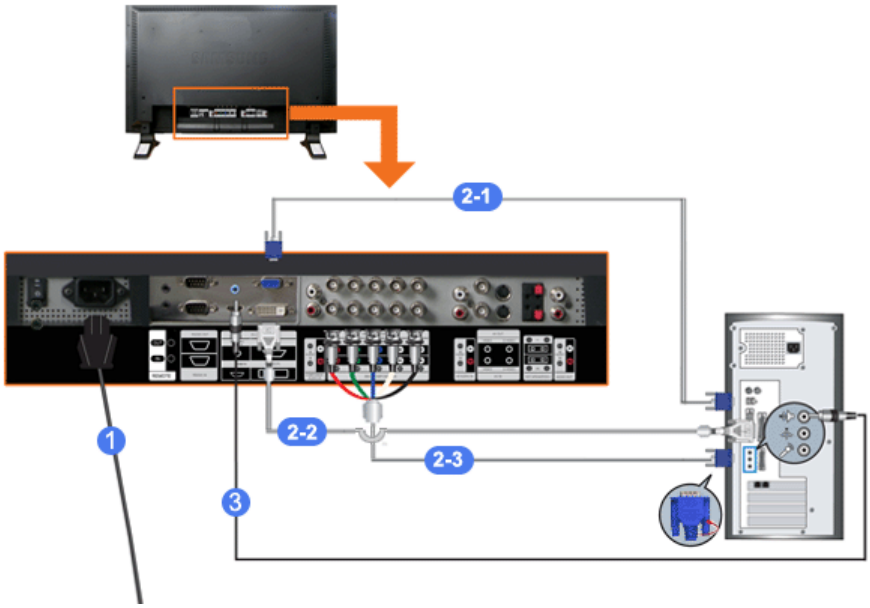
Using a Power cord with Earth

In the event of failure, the earth lead may cause electric shock. Make sure to wire the earth lead in correctly, before connecting the AC power. When un-wiring the earth lead, make sure to disconnect the AC power in advance.

☑ Note

- AV input devices such as DVD players, VCR's or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the User Controls under Adjusting Your LCD Display.

Connecting a Computer



1) Connect the power cord for your LCD Display to the power port on the back of the LCD Display.
Trun on the power switch.

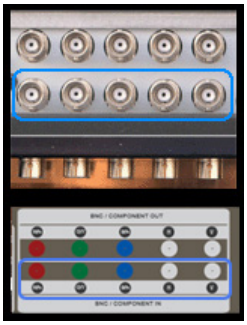
2) There are 3 ways to connect the D-sub to your LCD Display.
Choose one of the following:

2-1) Using the D-sub (Analog) connector on the video card.
Connect the D-sub to the 15-pin, **RGB port** on the back of your LCD Display and the **15 pin D-sub Port** on the computer.

2-2) Using the DVI (Digital) connector on the video card.
Connect the DVI Cable to the **DVI(HDCP) port** on the back of your LCD Display and the **DVI port** on the computer.

2-3)

Using the BNC (Analog) connector on the video card.
Connect the BNC Cable to the **BNC/COMPONENT IN - R, G, B, H, V ports** on the back of your LCD Display and the **15 pin D-sub Port** on the computer.



3) Connect the audio cable for your LCD Display to the audio port on the back of your computer.

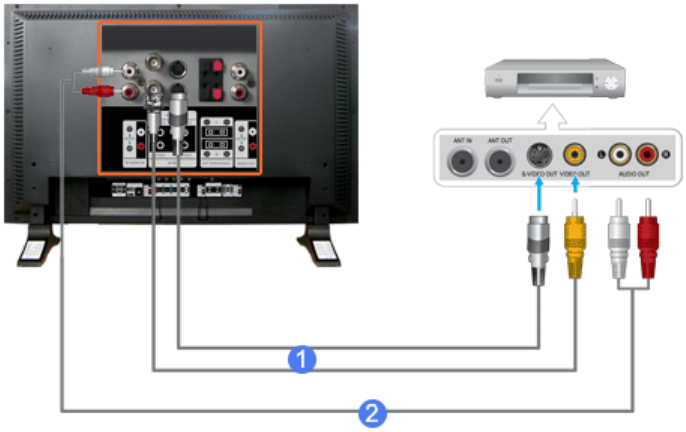
☑ Note

- Turn on both your computer and the LCD Display.

☑ Note

- The DVI cable or BNC cable is optional.
  Contact a local Samsung Electronics Service Center to buy optional items.

Connecting a VCR



1) AV input devices such as VCRs or Camcorders are connected via the **AV IN [VIDEO]** or **AV IN [S-VIDEO]** of the LCD Display using an S-VHS or BNC cable.
2) Connect the Audio (L) and Audio (R) terminals of a VCR or Camcorders to the LCD Display 's **AV AUDIO IN [L-AUDIO-R]** using audio cables.

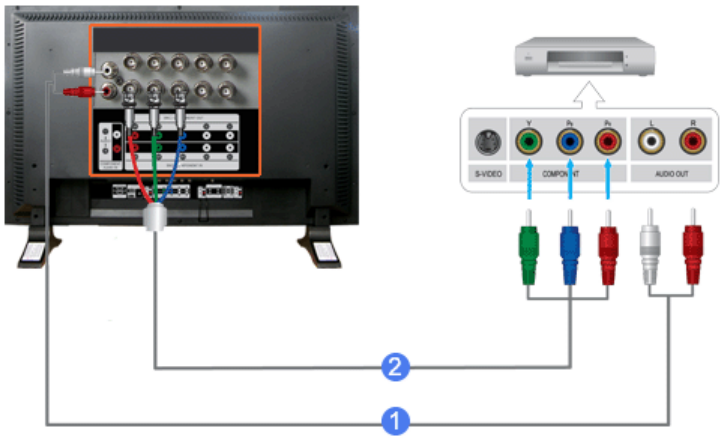
☑ Note

- Select **AV** or **S-Video** for a connected VCR or Camcorder using the SOURCE button on the front of the LCD Display or on the remote control.
- Then, start the VCR or Camcorders with a tape inserted.

☑ Note

- The S-VHS or BNC cable is optional.

Connecting a DVD Player



1) Connect a set of audio cables between the **COMPONENT AUDIO IN [L-AUDIO-R]** on the LCD Display and the AUDIO OUT jacks on the DVD player.

2) Connect a Component cable between the **BNC/COMPONENT IN - PR, Y, PB port** on the LCD Display and the PR, Y, PB jacks on the DVD player.

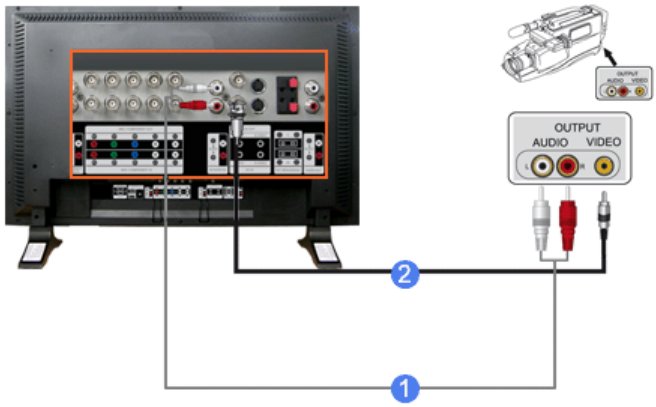
☑ Note

- Select **Component** for the connection to a DVD player using the SOURCE button on the front of the LCD Display or on the remote control.
- Then, start the DVD Player with a DVD disc inserted.

☑ Note

- A component cable is optional.
  For an explanation of Component video, consult your DVD manual.

Connecting a Camcorder



1) Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder.
   Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the **AV AUDIO IN [L-AUDIO-R]** on the LCD Display.

2) Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the **AV IN [VIDEO]** on the LCD Display.

☑ Note

- Select **AV** for the Camcorder connection using the SOURCE button on the front of the LCD Display or on the remote control.
- Then, start the Camcorders with a tape inserted.

☑ Note

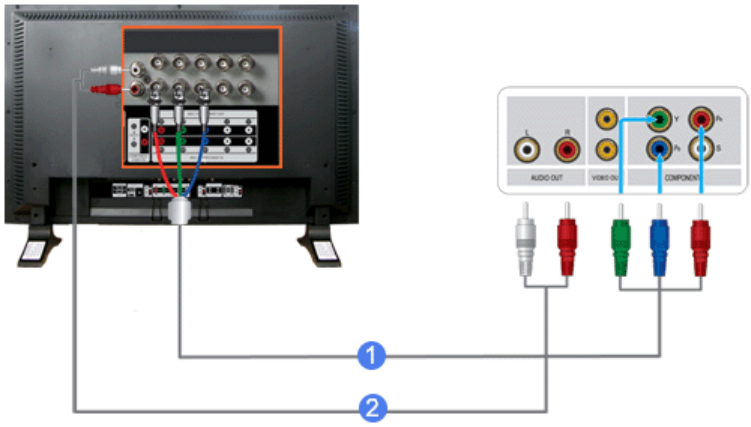
- The audio-video cables shown here are usually included with a Camcorder.

  (If not, check your local electronics store.)
  If your camcorder is stereo, you need to connect a set of two cables.

Connecting a DTV Set Top Box

☑ Note

- The connections for a typical Set Top Box are shown below.



1) Connect a Component cable between the **BNC / COMPONENT IN - PR, Y, PB** port on the LCD Display and the PR, Y, PB jacks on the Set Top Box.
2) Connect a set of audio cables between the **COMPONENT AUDIO IN [L-AUDIO-R]** on the LCD Display and the AUDIO OUT jacks on the Set Top Box.

☑ Note

- Select **Component** for the connection to a DTV Set Top Box using the SOURCE button on the front of the LCD Display or on the remote control.

☑ Note

- For an explanation of Component video, see your Set Top Box owner's manual.

Connecting Speakers

☑ Note

- Fasten the SET and the speaker using the screws.
  * Mount the speaker set without the speaker stand.

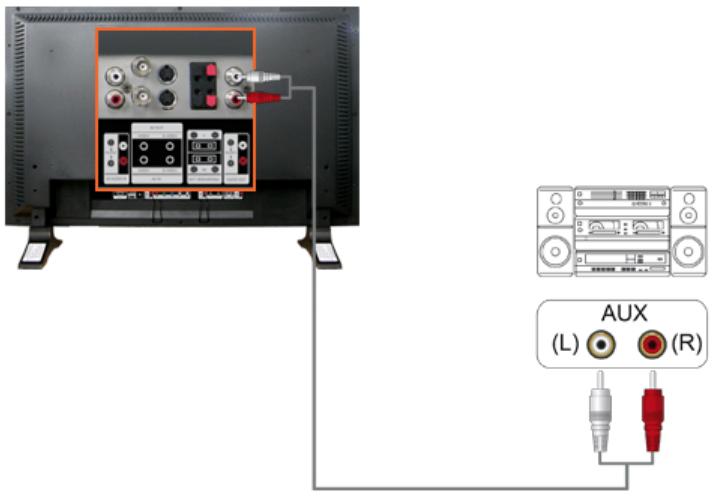
☑ Note

- Connect the speaker connection cable between the speaker connection jack on the back of the SET and the speaker connection jack on the back of the speaker.

☑ Note

- Do not move the SET while the SET is connected to the speakers.
  The speaker-bracket for connecting the SET speaker my become damaged.

Connecting to an Audio System



☑ Note

- Connect a set of audio cables between the AUX L, R jacks on the **AUDIO SYSTEM** and the **AUDIO OUT [L-AUDIO-R]** on LCD Display.

Connecting to a Wired Remote Control

☑ Note

- You can control your monitor by allowing it to receive the remote control signals of other devices through the REMOTE OUT terminal.
- You can control a device by allowing it to receive remote control signals from other devices through the REMOTE IN terminal.

☑ Note

- Restrictions: Available only if other devices support the wired remote control I/O terminals.

Connecting HDMI

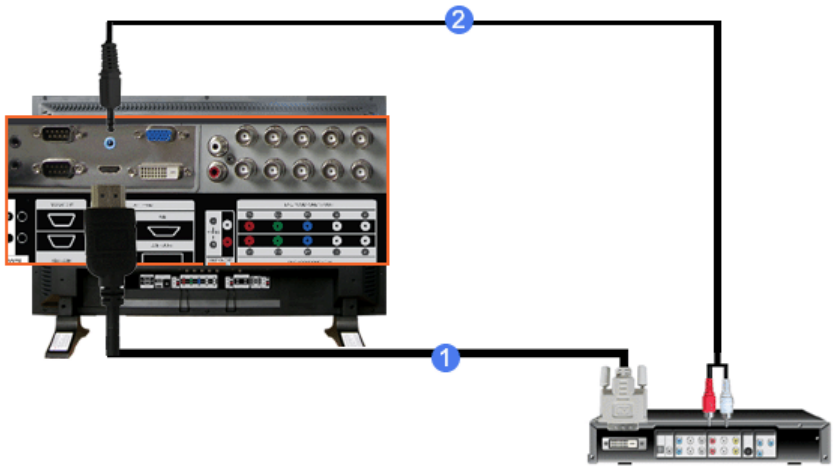
☑ Note

- Input devices such as digital DVD are connected to the HDMI IN terminal of the monitor using the HDMI cable.

☑ Note

- You cannot connect a PC to the HDMI IN terminal.

Connecting Using a DVI to HDMI Cable



1) Connect the DVI output terminal of a digital output device to the HDMI IN terminal of the monitor using a DVI to HDMI cable.
2) Connect the red and white jacks of an RCA to stereo (for PC) cable to the same colored audio output terminals of the digital output device, and connect the opposite jack to the HDMI / PC / DVI-D AUDIO IN terminal of the monitor.

© 1995~2007 SAMSUNG. ALL Rights Reserved

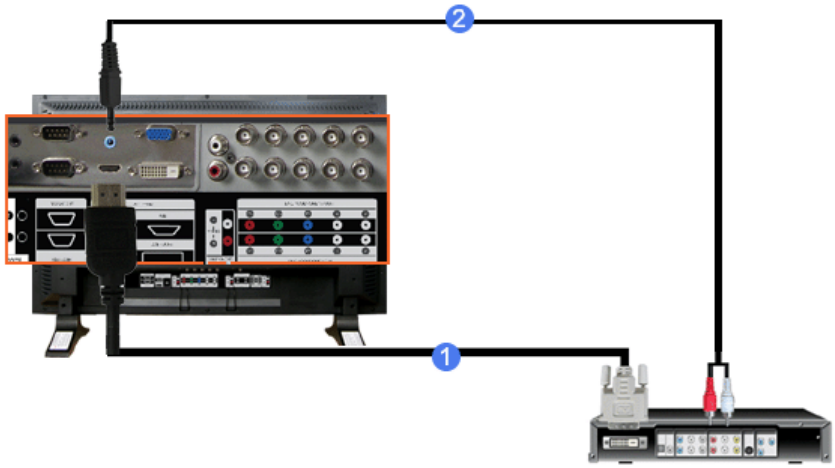
☑ Note

- Input devices such as digital DVD are connected to the HDMI IN terminal of the monitor using the HDMI cable.

☑ Note

- You cannot connect a PC to the HDMI IN terminal.

Connecting Using a DVI to HDMI Cable



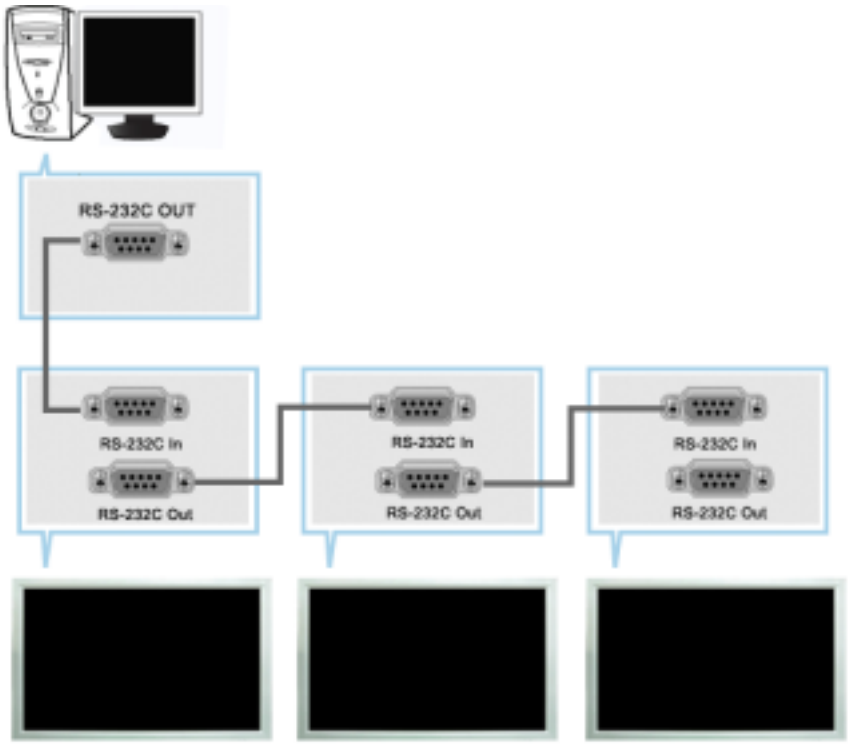
1) Connect the DVI output terminal of a digital output device to the HDMI IN terminal of the monitor using a DVI to HDMI cable.
2) Connect the red and white jacks of an RCA to stereo (for PC) cable to the same colored audio output terminals of the digital output device, and connect the opposite jack to the HDMI / PC / DVI-D AUDIO IN terminal of the monitor.

© 1995~2007 SAMSUNG. ALL Rights Reserved

Multiple Display Control

MDC System

Introduction

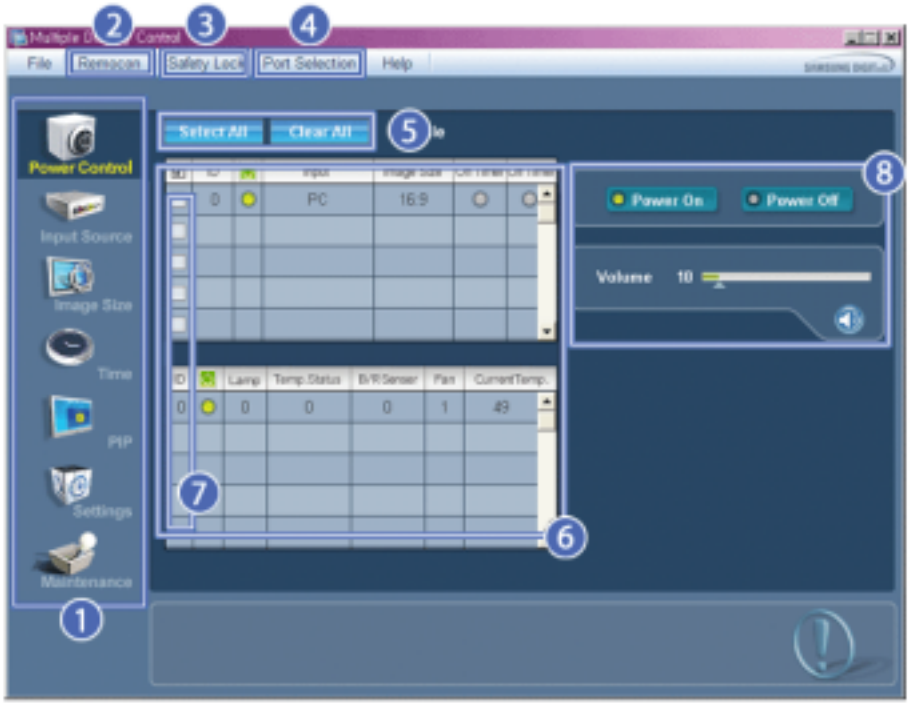


A Multiple Display Control (MDC) is an application allowing various displays to be easily and simultaneously operated on a PC. RS-232C, a standard of serial communication, is used for the communication between a PC and a display. Therefore, a serial cable should be connected between the serial port on a PC and the serial port on a display.

Main Screen

Click Start > Program > Samsung > MDC System to start the program.

Select a set to see the volume of the selected set within the slider.



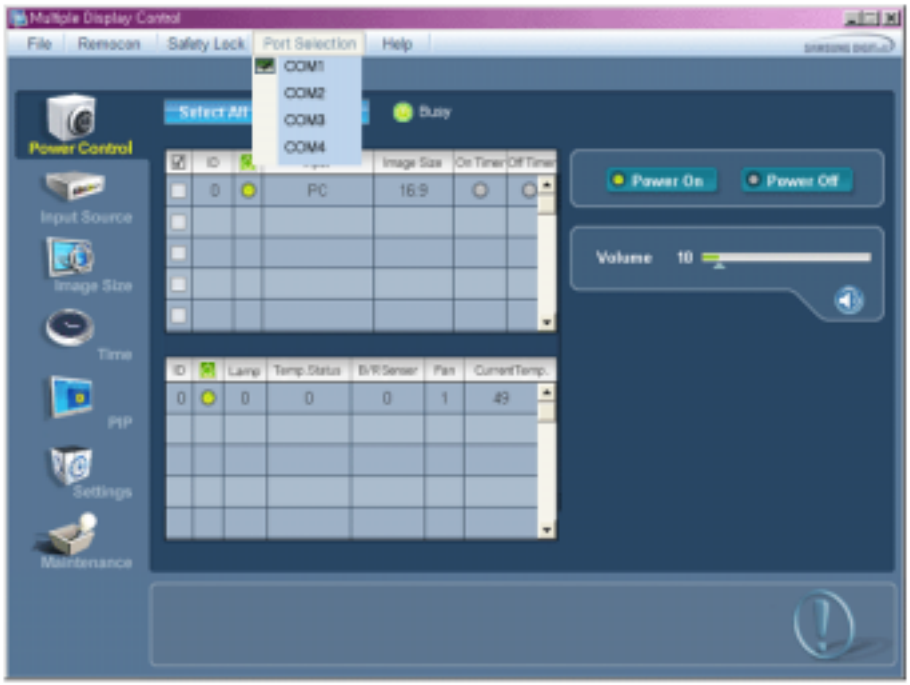
1. Main Icons
2. Remocon
3. Safety Lock
4. Port Selection
5. Select Button
6. Info Grid
7. Display Selection
8. Control Tools

---

1. Use the main icons to switch into each screen.
2. Allows you to enable or disable the remote control signal receiving function of the display unit.
3. Set the Safety Lock function.
   When setting the Lock function, you can only operate power and lock buttons on the remote control and set.
4. The setting for the PC Serial Port can change. The original value is COM1.
5. Click Select all or Clear to select or clear all displays.
6. Use Grid to view brief information on selected display.
7. Select a display from Display Selection.
8. Use Control Tools to control displays.

<Note> The remote control Enable/Disable function operates whether or not the power is On/Off, and this applies to all displays connected to the MDC. However, regardless of the status at the time the MDC is shut down, the remote control signal receiving function of all displays is initialized to Enable when the MDC is closed.

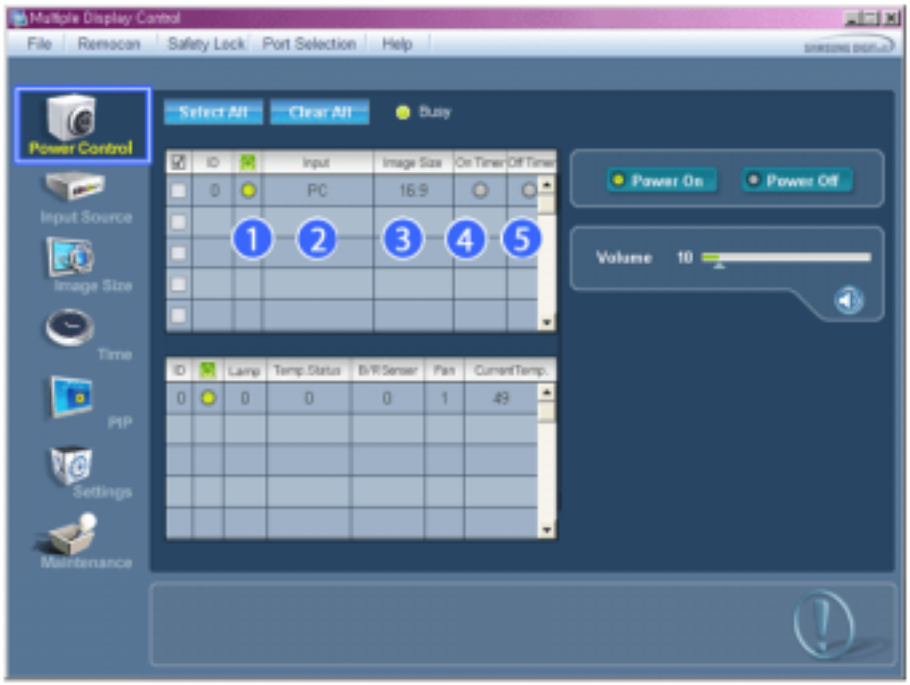
Port Selection



1. The Multiple Display Control is originally set to COM1.
2. If any port other than COM1 is used, COM1 through COM4 can be selected in the Port Selection Menu.
3. If the exact port name that is connected to the LCD Display using a serial cable is not selected, communication will be unavailable.
4. The selected port is stored in the program and used for the next program as well.

Power Control

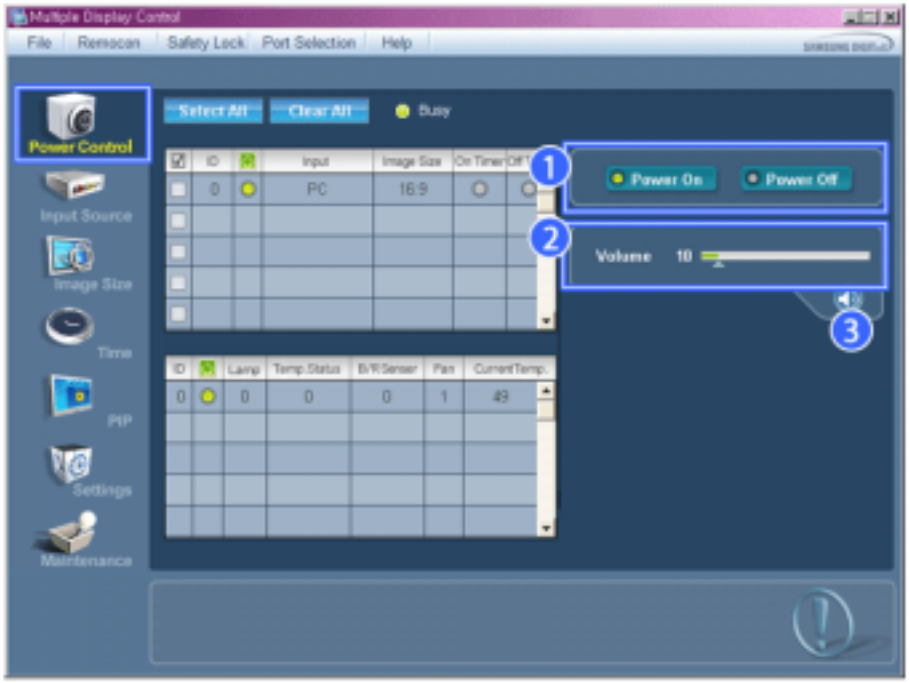
1. Click Power Control of the main icons and the Power Control screen appears.



Info Grid shows some basic information necessary to Power Control.

1) (Power Status)
2) Input
3) Image Size
4) On Timer
5) Off Timer

2. Use the Select All button or Check Box to choose a display to control.



Power Control allows controlling some of the functions of the selected display.

1) Power On/Off

- Turns the power of the selected display On/Off.

2) Volume
   - Controls the volume level of the selected display.
     It receives the volume value of the selected display from the sets and displays it in the slider.
     (When you cancel the selection or choose Select All, the value returns to the default value 10)

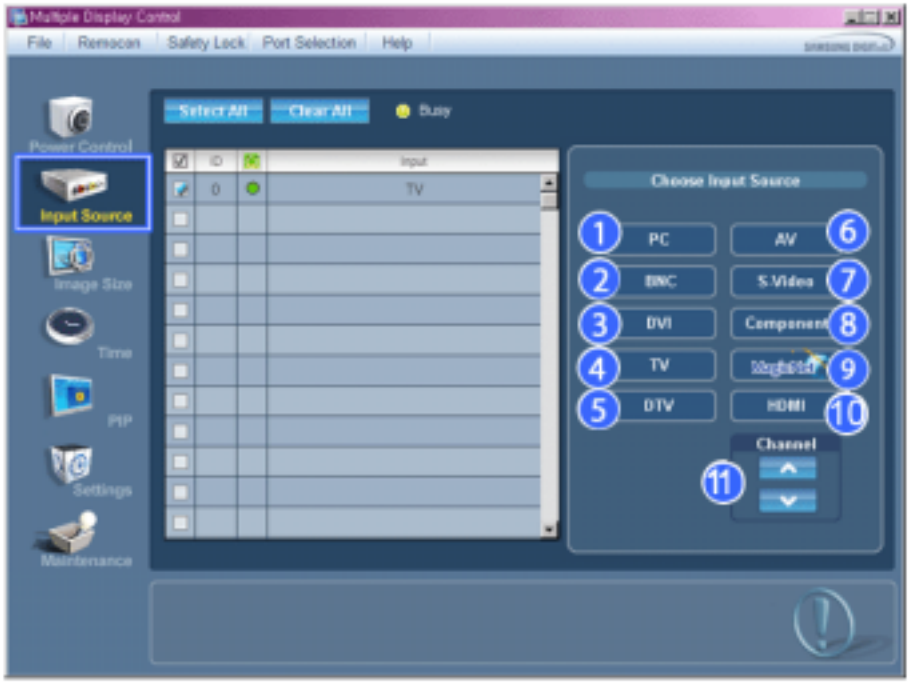
3) (Mute On/Off)
   - Turns on/off the Mute function of the selected display.
     When selecting one set at a time, turn on the Mute function for the selected set.
     The Mute function is disabled automatically when you adjust the volume level.
     (The values return to the default settings when you undo the selections or choose "Select All".)

* **The Power Control feature is available for all displays.**
* **The Volume Control and Mute features are available only for the displays whose power status is ON.**

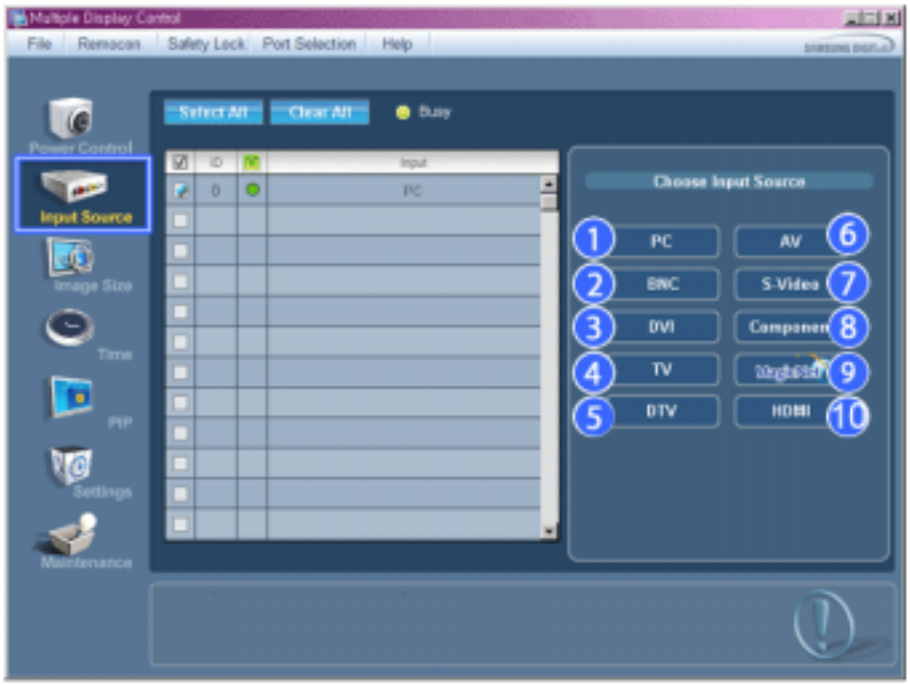
Input Source

1. Click Input Source of the main icons and the Input Source control screen appears.
   Click Select All or use Check Box to select a display to control.

• TV Mode



• PC Mode



- Info Grid shows some basic information necessary to Input Source Control.

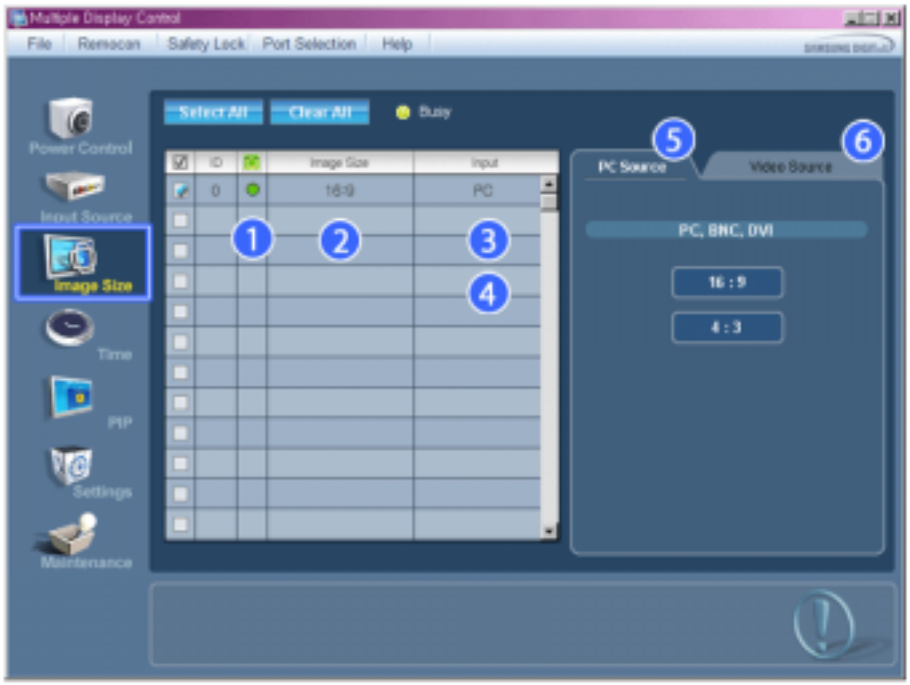
1) PC
   - Changes the Input Source of the selected display to PC.
2) BNC
   - Changes the Input Source of the selected display to BNC.
3) DVI
   - Changes the Input Source of the selected display to DVI.
4) TV
   - Changes the Input Source of the selected display to TV.
5) DTV
   - Changes the Input Source of the selected display to DTV.
6) AV
   - Changes the Input Source of the selected display to AV.
7) S-Video
   - Changes the Input Source of the selected display to S-Video.
8) Component
   - Changes the Input Source of the selected display to Component.
9) MagicNet
   - The Input source of MagicNet works only on MagicNet model.
10) HDMI
   - Changes the Input Source of the selected display to HDMI.
11) Channel
   - Channel arrow appears when the Input Source is TV.

- **TV Source can be selected only in products with TV and controlling channels is allowed only when Input Source is TV.**
- **The Input Source Control feature is available only for the displays whose power status is ON.**

Image Size

PC, BNC, DVI

1. Click Image Size of the main icons and the Image Size control screen appears.



Info Grid shows some basic information necessary to Image Size Control.

1) (Power Status)
   - Shows the power status of the current display.
2) Image Size
   - Shows the current Image Size of the display in use.
3) Input
   - Shows the current Input Source of the display in use.
4) Info Grid displays only the displays whose Input Source is PC, BNC, DVI.
5) PC Source - When you click Image Size, the PC Source tab first appear.
   - The Image Size Control button controls Image Size available for PC, BNC, DVI.
6) Video Source
   - Click the Video Source tab to control Image Size for respective Input Source.

The Input source of MagicNet works only on MagicNet model.

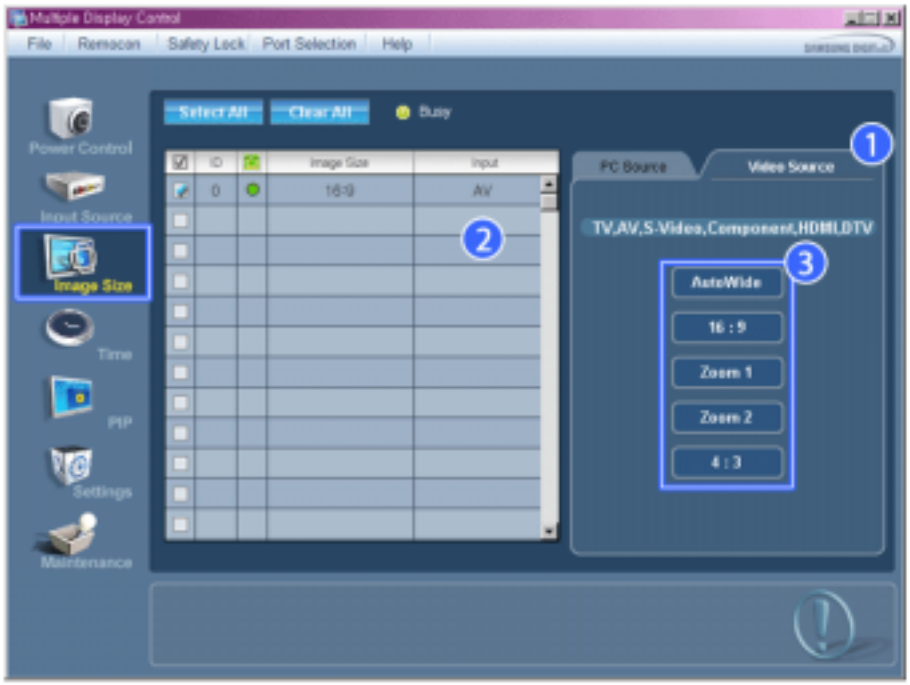
The Input source of TV works only on TV model.

Image Size Control is available only for the displays for which power status is ON.

Image Size

TV, AV, S-Video, Component, DVI(HDCP), HDMI, DTV

1. Click Image Size of the main icons and the Image Size control screen appears.



Info Grid shows some basic information necessary to Image Size Control.

1) Click the Video Source tab to adjust Image Size for TV, AV, S-Video, Component, DVI(HDCP), HDMI, DTV. Click Select All or use Check Box to select a display to control.
2) Info Grid displays only the display having TV, AV, S-Video, Component or DVI(HDCP) as input source.
3) Switch Image Size of the selected display randomly.

Note: Auto Wide, Zoom1 and Zoom2 are not available for selection when the input signal type for Component and DVI (HDCP) is 720p or 1080i.
(The Auto Wide mode is available only for TV, AV, and S-Video.)

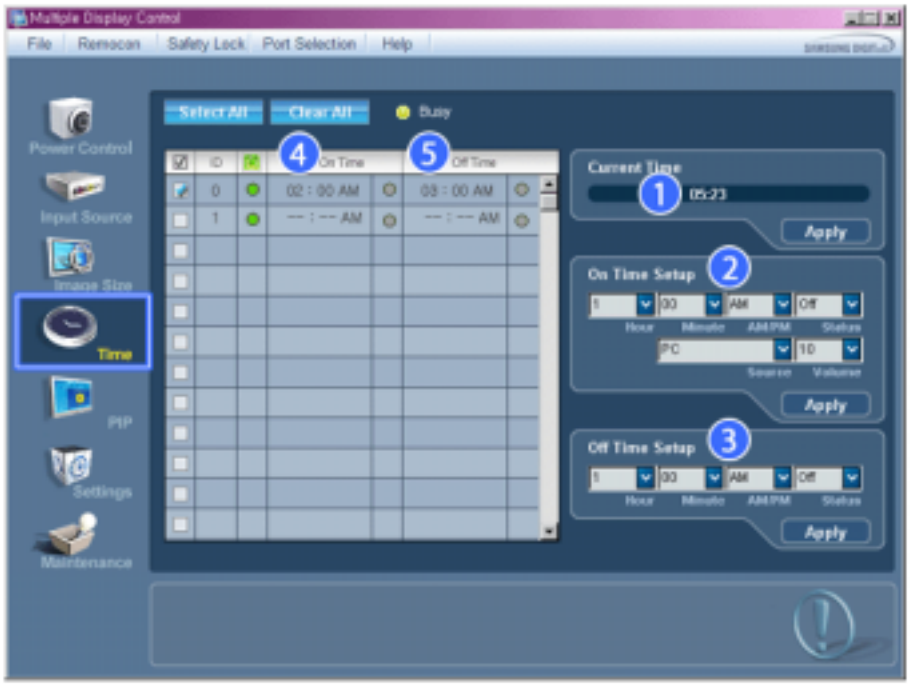
The Input source of MagicNet works only on MagicNet model.

The Input source of TV works only on TV model.

The Image Size Control feature is available only for the displays whose power status is ON.

Time

1. Click Time of the main icons and the Time Control screen appears.



Info Grid shows some basic information necessary to Time Control.

1) Current Time
   - Set the current time for the selected display (PC Time).
   - To change the current time, first change the PC Time.
2) On Time Setup
   - Set the Hour, Minute, AM/PM of On Time Setup, Status, Source, Volume of the selected display.
3) Off Time Setup
   - Set the Hour, Minute, and AM/PM, Status for Off Time Setup of the selected display.
4) Shows the On Time settings.
5) Shows the Off Time settings.

The Input source of MagicNet works only on MagicNet model.

The Input source of TV works only on TV model.

Time Control is available only for the displays for which the power status is ON.

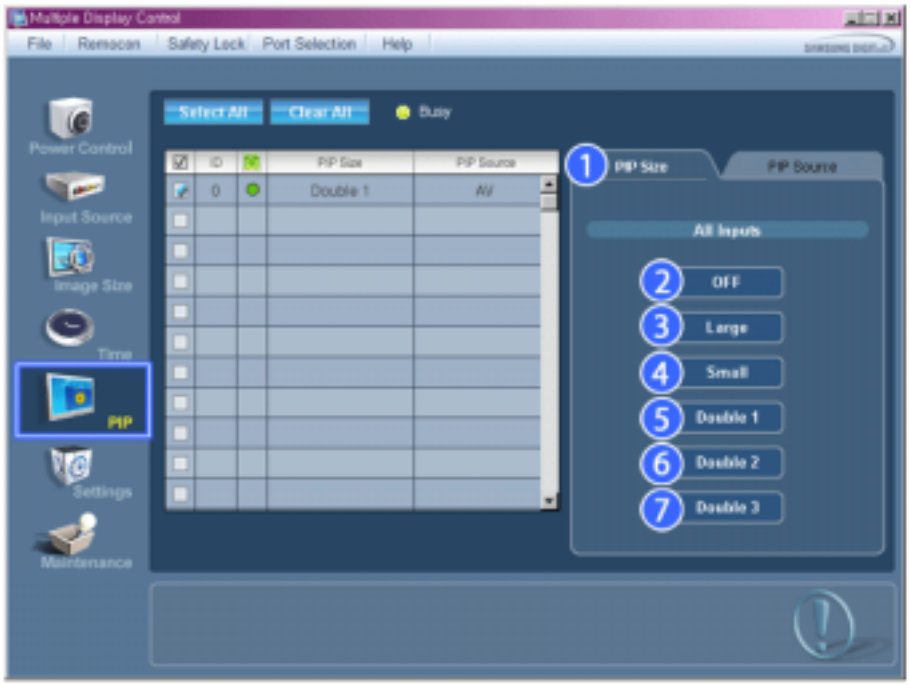
At On Time Setup, TV Source functions only for TV Model.

At On Time Setup, MagicNet Source functions only for MagicNet Model.

PIP

PIP Size

1. Click PIP of the main icons and the PIP control screen appears.
   Click Select All or use Check Box to select a display to control.



Info Grid shows some basic information necessary to PIP Size Control.

1) PIP Size
   - Shows the current PIP Size of the display in use.
2) OFF
   - Turns off the PIP of the selected display.
3) Large
   - Turns on the PIP of the selected display and changes the size to Large.
4) Small
   - Turns on the PIP of the selected display and changes the size to Small.
5) Double 1
   - Turns on the PIP of the selected display and changes the size to Double 1.
6) Double 2
   - Turns on the PIP of the selected display and changes the size to Double 2.
7) Double 3 (Picture By Picture)
   - Turns on the PBP of the selected display and changes the size to Double 3.

The Input source of MagicNet works only on MagicNet model.

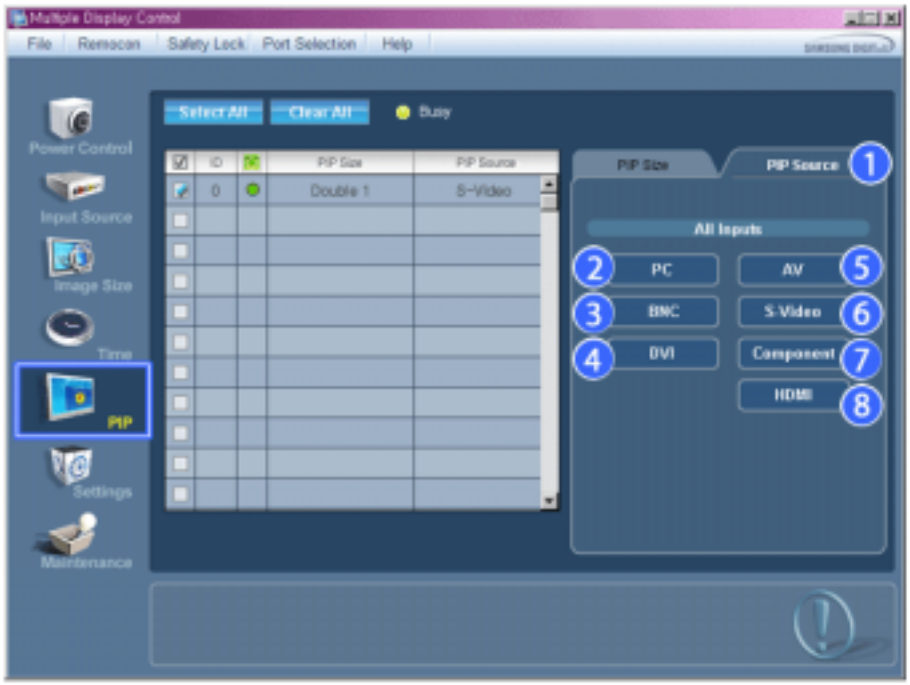
The Input source of TV works only on TV model.

PIP Size can be controlled with turning on the LCD Display power.

PIP

PIP Source

1. Click PIP of the main icons and the PIP control screen appears.



Info Grid shows some basic information necessary to PIP Source Control.

1) PIP Source
   - PIP Source can be controlled with turning on the LCD Display power.
2) PC
   - Changes the source of the PIP of the selected display to PC.
3) BNC
   - Changes the source of the PIP of the selected display to BNC.
4) DVI
   - Changes the source of the PIP of the selected display to DVI.
5) AV
   - Changes the source of the PIP of the selected display to AV.
6) S-Video
   - Changes the source of the PIP of the selected display to S-Video.
7) Component
   - Changes the source of the PIP of the selected display to Component.
8) HDMI
   - Changes the source of the PIP of the selected display to HDMI.

Note: Some of the PIP Sources may not be available for selection, depending on the input source type of the Main Screen.

The Input source of MagicNet works only on MagicNet model.

The PIP Control feature is available only for the displays whose power status is ON and the PIP function is set to ON.

Settings

Picture

1. Click Settings of the main icons and the Settings Control screen appears.

- Info Grid shows some basic information necessary to Settings Control.
  When each function is selected, the set value of the selected function is displayed in the slide.When selected, each function fetches the value for the set and displays it on the slide bar. When "Select All" is chosen, the default value is displayed. Changing a value in this screen will automatically change the mode to "CUSTOM."

1) Picture
   - Available only for TV, AV, S-Video, Component, HDMI, DTV.
2) Contrast
   - Adjusts Contrast of the selected display.
3) Brightness
   - Adjusts Brightness of the selected display.
4) Sharpness
   - Adjusts Sharpness of the selected display.
5) Color
   - Adjusts Color of the selected display.
6) Tint
   - Adjusts Tint of the selected display.
   - Available only for NT.
7) Color Tone
   - Adjusts the Color Tone for the selected display.
8) Color Temp
   - Adjusts the Color Temp for the selected display.
9) Brightness Sensor
   - Adjusts the Brightness Sensor for the selected display.
10) Dynamic Contrast
   - Adjusts the Dynamic Contrast for the selected display.

- **The Input source of MagicNet works only on MagicNet model.**
- **Color Temp is only enabled if the Color Tone is set to Off.**
- **The Input source of TV works only on TV model.**
- **This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.**

Settings

Picture PC

1. Click Settings of the main icons and the Settings Control screen appears.

Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide. When selected, each function fetches the value for the set and displays it on the slide bar. When "Select All" is chosen, the default value is displayed. Changing a value in this screen will automatically change the mode to "CUSTOM."

1) Picture PC
   - Available only for PC, BNC, DVI.
2) Contrast
   - Adjusts Contrast of the selected display.
3) Brightness
   - Adjusts Brightness for the selected display.
4) Red
   - Adjusts red Color of the selected display.
   - Available only for NT.
5) Green
   - Adjusts green Color of the selected display.
   - Available only for NT.
6) Blue
   - Adjusts blue Color of the selected display.
   - Available only for NT.
7) Color Tone
   - Adjusts the Color Tone for the selected display.
8) Color Temp
   - Adjusts the Color Temp for the selected display.
9) Brightness Sensor
   - Adjusts the Brightness Sensor for the selected display.

The Input source of MagicNet works only on MagicNet model.

The Input source of TV works only on TV model.

Color Temp is only enabled if the Color Tone is set to Off.

This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.

Settings

Audio

1. Click Settings of the main icons and the Settings Control screen appears.

Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide. When selected, each function fetches the value for the set and displays it on the slide bar. When "Select All" is chosen, the default value is displayed. Changing a value in this screen will automatically change the mode to "CUSTOM."

1) Audio
   - Controls audio settings for all input sources.
2) Bass
   - Adjusts Bass of the selected display.
3) Treble
   - Adjusts Treble of the selected display.
4) Balance
   - Adjusts Balance of the selected display.
5) SRS TS XT
   - SRS TS XT Sound ON/OFF of the selected display.
6) Sound Select
   - Select either Main or Sub when PIP is On.

The Input source of MagicNet works only on MagicNet model.

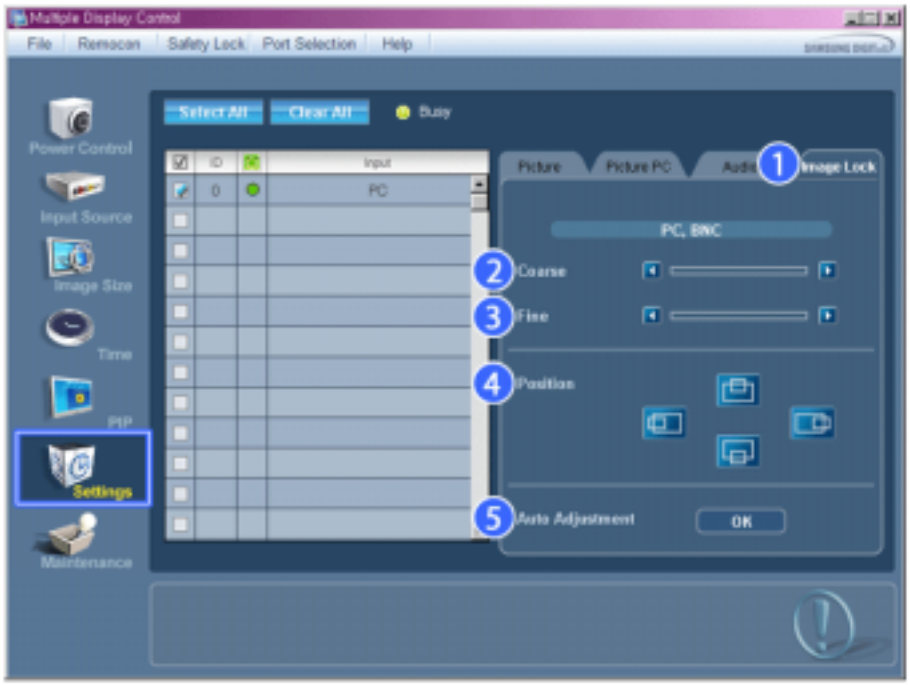
The Input source of TV works only on TV model.

This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.

Settings

Image Lock

1. Click Settings of the main icons and the Settings Control screen appears.



Info Grid shows some basic information necessary to Settings Control.

1) Image Lock
   - Available only for PC, BNC.
2) Coarse
   - Adjusts Coarse of the selected display.
3) Fine
   - Adjusts Fine of the selected display.
4) Position
   - Adjusts Position of the selected display.
5) Auto Adjustment
   - Self-Adjust to the incoming PC signal.

The Input source of MagicNet works only on MagicNet model.

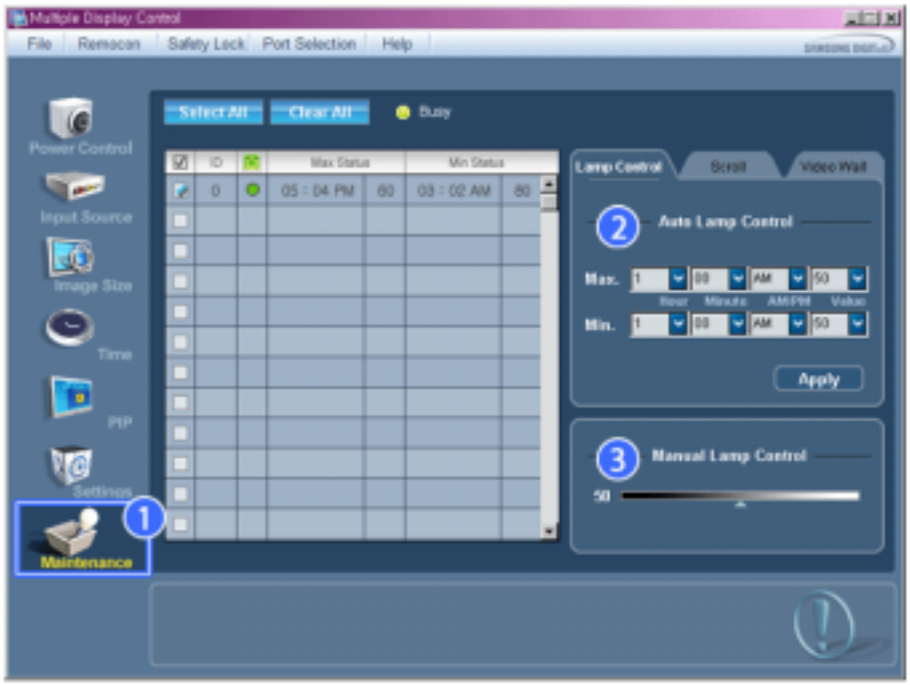
The Input source of TV works only on TV model.

Settings Control is available only for the displays for which the power status is ON.

Maintenance

Lamp Control

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



An "Info Grid" showing several basic data items appears.

1) Maintenance
   - Allows the Maintenance Control function for all input sources.

2) Auto Lamp Control
   - Automatically adjusts the backlight of the selected display at a specified time.
     The Manual Lamp Control automatically turns off if you adjust using the Auto Lamp Control.

3) Manual Lamp Control
   - Allows you to adjust the backlight of the selected display regardless of the time.
     The Auto Lamp Control automatically turns off if you adjust using the Manual Lamp Control.

The Maintenance Control feature is available only for the displays whose power status is ON.

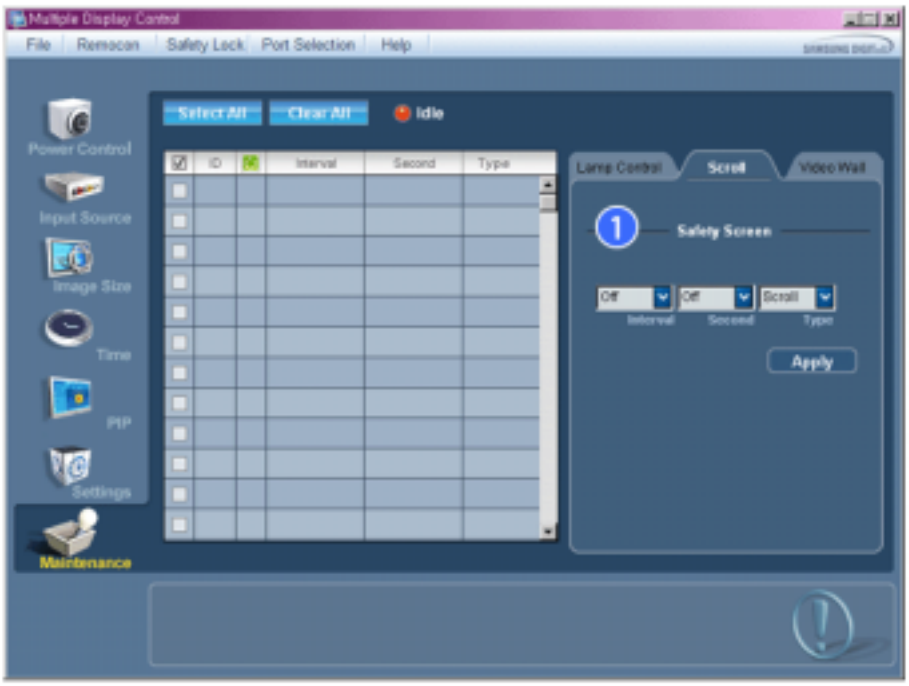
The Input source of MagicNet works only on MagicNet model.

The Input source of TV works only on TV model.

Maintenance

Scroll

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



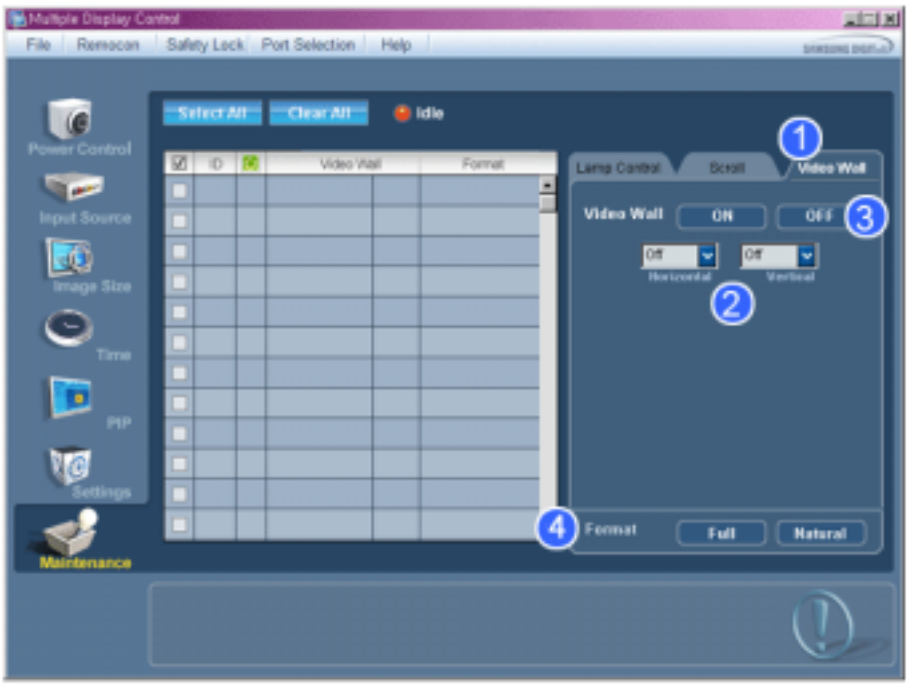
1) Safety Screen
   - Eliminates the afterimages that can result when the selected display stays in Pause mode for an extended period of time. You can set the repeat cycle timer by selecting the "Interval" by hour and "Second" by second.
     It can be set to Scroll, Pixel, Bar and Eraser by Screen Type.

* **The Input source of MagicNet works only on MagicNet model.**
* **The Input source of TV works only on TV model.**
* **Setting Second, you can set to 1, 2, 3, 4, 5 for Scroll Type and to 10, 20, 30, 40, 50 for Pixel, Bar, and Eraser Type.**
* **The Maintenance Control feature is available only for the displays whose power status is ON.**

Maintenance

Video Wall

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



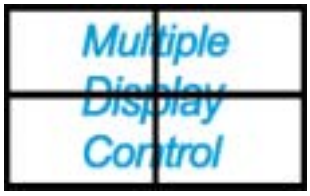
1) Video Wall
   - A Video Wall is a set of video screens that are connected together, so that each screen shows a part of the whole picture or so that the same picture is repeated on each screen.

2) Video Wall (Screen divider)
   - The screen can be divided into.
     You can select a number of screens with a different layout when dividing.
     - Select a mode from Screen divider.
     - Select a display from Display Selection.
     - The place will be set up by pressing a number in the selected mode.
     - The MDC program supplied by Samsung supports up to 5x5 LCD Displayes.

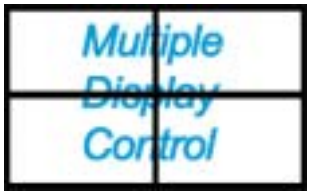
3) On / Off
   - Turns on/off the Video Wall function of the selected display.

4) Format
   - The format can be selected to see a divided screen.

- Full



- Natural



*** You may not operate this function in MagicNet.**

*** The Input source of TV works only on TV model.**

*** The Maintenance Control function is available only for the displays where the power status is ON.**

Troubleshooting

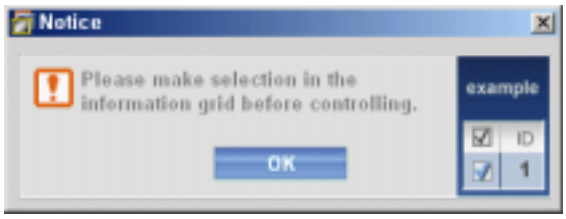
1. The display you wish to control does not appear on the Power Control Info Grid
   - Check the connection of RS232C. (Check if it is properly connected to the Com1 port)

- Check the displays to see if any of the other displays connected have the same ID. If more than one displays have the same ID, those displays are not properly detected by the program due to data conflict.
- Check if the Display Set ID is a number between 0 and **25**. (Adjust using the Display menu)

Note : A Display Set ID must be a value between 0 and **25** .

2. The display you wish to control does not appear on the other Control Info Grids
   - Check to see if the display power is ON. (You can check this in Power Control Info Grid)
   - Check if you can change the input source of the display.
3. The dialogue box appears repeatedly.
   - Check to see if the display you wish to control is selected.
4. Both On Timer and Off Timer have been set but different time is showing.
   - Apply current time to synchronize the display clocks.
5. The remote may not function properly when you turn off the remote Function, disconnect the RS-232C cable, or exit the program in an Irregular manner. Rerun the program and turn the remote function again to Restore normal functions.

<Note> This program may malfunction due to problems in communication circuits or interference from electronic appliances nearby.



Settings Value Display In Multiple Display Mode

When there are more than one displays connected, the settings values are displayed as follows.

1. No selection: Displays the Factory Default Value.
2. Selected one display: Fetches and displays the settings value for the selected display.
3. Selected one display (ID1) and add another display (ID3): The program, which was displaying the settings value of ID 1, fetches and displays the value of ID3.
4. Selected all sets using Select All: Returns to the Factory Default Value.

Copyright© 2003-2007 Samsung Electronics Co. Ltd. All rights reserved.

Safety Instructions
Introduction
Connections
Using the Software
Adjusting the LCD Display
Input
Picture
[PC / BNC /DVI Mode]
Picture
[AV / S-Video /
Component / HDMI Mode]
Sound
Setup
Multi Control
Direct Functions
Troubleshooting
Specifications
Information
Appendix

Model
SyncMaster 400DX

SyncMaster

www.samsung.com

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Adjusting the LCD Display

Input

Available Modes

P PC / BNC / DVI
A AV
S S-Video
C Component
H HDMI

Source List P A S C H

[MENU] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]

Use to select PC, BNC, or other external input sources connected to the LCD Display.
Use to select the screen of your choice.

1) **PC**
2) **BNC**
3) **DVI**
4) **AV**
5) **S-Video**
6) **Component**
7) **HDMI**

[The direct button on the remote control is the 'SOURCE' button.]

Note

- PIP turns off when the LCD Display is switched to an external source.
- For PC and DVI, this is deactivated if the cable is disconnected.

PIP P A S C H

When external AV devices such as VCRs or DVDs are connected to the LCD Display , PIP allows you to watch video from those devices in a small window super-imposed on the PC Video signal. (Off/On)

Note

- More than one PIP cannot be overlapped on screen as BNC and the component use the same terminal.

1) **PIP**

[MENU] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]
Turns the PIP Screen Off/On.
- Off
- On
[The direct button on the remote control is the 'PIP' button.]

2) **Source**

[MENU] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Selects the input source for the PIP.
- PC : AV / S-Video / Component / HDMI Mode
- BNC : AV / S-Video / HDMI Mode
- DVI : AV / S-Video / Component Mode
- AV / S-Video : PC / BNC / DVI Mode
- Component : PC / DVI Mode
- HDMI : PC / BNC Mode

[The direct button on the remote control is the 'SOURCE' button.]

3) **Swap**

[MENU] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Swaps the contents of the PIP and main image.

The image in the PIP window will appear on the main screen, and the main screen image will appear in the PIP window.

[The direct button on the remote control is the 'SWAP' button.]

4) **Size**

[MENU] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Changes the Size of the PIP window.

[The direct button on the remote control is the 'SIZE' button.]

5) **Position**

[MENU] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Changes the Position of the PIP window.

6) **Transparency**

[MENU] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Adjusts the Transparency of PIP windows.

- High

- Medium

- Low

- Opaque

Note

- If you select , , in Size, Position and Transparency will not be activated.

Available Modes: PIP ON

Edit Name P A S C H

[MENU] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Name the input device connected to the input jacks to make your input source selection easier.

1) **PC**
2) **BNC**
3) **DVI**
4) **AV**
5) **S-Video**
6) **Component**
7) **HDMI**

Picture [PC / BNC /DVI Mode]

Available Modes

P PC / BNC / DVI

A AV

S S-Video

C Component

H HDMI

MagicBright™ P

[MENU] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]

MagicBright™ is a new feature providing the optimum viewing environment depending on the contents of the image you are watching.
Currently four different modes are available: Entertain, Internet, Text and Custom.
Each mode has its own pre-configured brightness value. You can easily select one of the four settings by simply pressing the MagicBright™ control button.

1) **Entertain**
   High brightness
   For watching motion pictures such as a DVD or VCD.
2) **Internet**
   Medium brightness
   For working with a mixture of images such as the text with graphics added.
3) **Text**
   Normal brightness
   For documentations or work involving a lot of text.
4) **Custom**
   Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable for your eyes depending on your taste.
   If this is the case, Adjusts the brightness and contrast by using the OSD menu.

[The direct button on the remote control is the 'M/B' button.]

Custom

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] / [< / >] → [ENTER]

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.

1) **Contrast**
   Adjusts the Contrast.
2) **Brightness**
   Adjusts the Brightness.

Note

- By adjusting the picture using the Custom function, MagicBright will change to Custom mode.

Color Tone

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

The color tones can be changed.

1) **Off**
2) **Cool**
3) **Normal**
4) **Warm**
5) **Custom**
   (Available in PC, BNC mode only)

Note

- If you set the Color Tone to Cool, Normal, Warm, or Custom, the Color Temp function is disabled.
- If you set the Color Tone to Off, the Color Control function is disabled

Color Control

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [< / >] → [ENTER]

Adjusts the individual R, G, B color controls.
(Available in PC, BNC mode only)

1) **Red**
2) **Green**
3) **Blue**

Note

- If you adjust the picture by using the Custom function, Color Tone will turn to the Cusome mode.

Color Temp

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [ENTER]

Color Temp is a measure of the 'warmth' of the image colors.
(This function is only enabled if the Color Tone is set to Off.)

Brightness Sensor

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [ENTER]

Brightness Sensor is to automatically detect distribution of inputted visual signal and adjust to create optimum brightness.

1) **On**
2) **Off**

Image Lock

Image Lock is used to fine-tune and get the best image by removing noise that creates unstable images with jitters and shakiness. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.
(Available in PC, BNC mode only)

1) **Coarse**

   [MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [< / >] → [ENTER]
   Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the center using the horizontal control menu.
2) **Fine**

   [MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] →[ENTER] → [< / >] → [ENTER]
   Removes noise such as horizontal stripes. If the noise persists even after fine tuning, repeat it after adjusting the frequency (clock speed).
3) **Position**

   [MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] →[ENTER] → [< / >] / [∧ / ∨]→ [ENTER]
   Adjusts the screen location horizontally and vertically.

Auto Adjustment

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

The values of Fine, Coarse, Position are adjusted automatically.
By changing the resolution in the control panel, the auto function is performed.
(Available in PC, BNC mode only)

[The direct button on the remote control is the 'AUTO' button.]

Signal Balance

This is used to make up for the weak RGB signal transmitted by a long signal cable.
(Available in PC, BNC mode only)

1) **Signal Balance**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]

Selects either On or Off with the signal control.

2) **Signal Control**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [< / >] → [ENTER]

Adjusts the Gain and Sharpness manually.

Size P

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

The Size can be switched.

1) **16:9**
2) **4:3**

PIP Picture P

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [ENTER]

Adjusts the PIP Screen Settings.

1) **Contrast**
   Adjusts the Contrast of the PIP window on the screen.
2) **Brightness**
   Adjusts the Brightness of the PIP window on the screen.
3) **Sharpness**
   Adjusts the difference between the lightest and darkest areas of the PIP window.
4) **Color**
   Adjusts the Color of the PIP window on the screen.
5) **Tint**
   Adds a natural tone to the PIP window.
   You can view a picture from AV, S-Video through the PIP screen in PC, BNC and DVI mode.
   Operates only if the video signal is NTSC.

Available Modes: PIP ON

Picture [AV / S-Video / Component / HDMI Mode]

Available Modes

P PC / BNC / DVI

A AV

S S-Video

C Component

H HDMI

Mode A S C H

[MENU] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]

The LCD Display has four automatic picture settings ("Dynamic", "Standard", "Movie" and "Custom") that are preset at the factory.
Dynamic, Standard, Movie, or Custom can be activated.

1) **Dynamic**
2) **Standard**
3) **Movie**
4) **Custom**

[The direct button on the remote control is the 'P.MODE' button.]

Custom A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [ENTER]

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.

1) **Contrast**
   Adds a natural tone to the PIP window.
2) **Brightness**
   Adjusts the Brightness.
3) **Sharpness**
   Adjusts the picture Sharpness.
4) **Color**
   Adjusts the picture Color.
5) **Tint**
   Adds a natural tone to the display.
   Operates only for AV and S-Video mode. Operates only if the video signal is NTSC.

Color Tone A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

The color tones can be changed. The individual Color components are also user adjustable.

1) **Off**
2) **Cool2**
3) **Cool1**
4) **Normal**
5) **Warm1**
6) **Warm2**

Note

- If you set the Color Tone to Cool1, Cool2, Normal, Warm1, or Warm2, the Color Temp function is disabled.

Color Temp A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [ENTER]

Color temp is a measure of the 'warmth' of the image colors.
(This function is only enabled if the Color Tone is set to Off.)

Size A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

The Size can be switched.

1) **16:9**
2) **Zoom 1**
3) **Zoom 2**
4) **4:3**

[The ZOOM1, ZOOM2 are not available in 1080i (or over 720p) of Component and HDMI.]

Brightness Sensor A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [ENTER]

Brightness Sensor is to automatically detect distribution of inputted visual signal and adjust to create optimum brightness.

1) **Off**
2) **On**

Dynamic Contrast A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨]→ [ENTER]

Dynamic Contrast is to automatically detect distribution of inputted visual signal and adjust to create optimum contrast.

1) **Off**
2) **On**

Digital NR (Digital Noise Reduction) A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Turns the Digital Noise Reduction feature Off/On.
The Digital Noise Reduction feature allows you to enjoy clearer and crisper images.

1) **Off**
2) **On**

Film Mode A S C

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Turns Film Mode Off/On.
The Film Mode feature offers you a theater-quality viewing experience.
(Not available in DVI-Video / HDMI Mode)

1) **Off**
2) **On**

PIP Picture A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] →[< / >] → [ENTER]

Adjusts the PIP Screen Settings.

1) **Contrast**
   Adjusts the Contrast of the PIP window on the screen.
2) **Brightness**
   Adjusts the Brightness of the PIP window on the screen.

Available Modes: PIP ON

Sound

Available Modes

P PC / BNC / DVI
A AV
S S-Video
C Component
H HDMI

Mode P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]

The LCD Display has a built-in high fidelity stereo amplifier.

1) **Standard**
   Selects Standard for the standard factory settings.
2) **Music**
   Selects Music when watching music videos or concerts.
3) **Movie**
   Selects Movie when viewing movies.
4) **Speech**
   Selects Speech when watching a show that is mostly dialogue (i.e., news).
5) **Custom**
   Selects Custom if you want to Adjusts the settings according to your personal preferences.

Custom PASCH

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [ENTER]

The sound settings can be adjusted to suit your your personal preferences.

1) **Bass**
   Emphasizes low frequency audio.
2) **Treble**
   Emphasizes high frequency audio.
3) **Balance**
   Allows you to Adjusts the sound balance between the left and right speakers.

[You can hear the sound even when sound value is set to 0.]

Note

- If you adjust picture using Sound Custom function, Sound Mode will turn to Custom mode.

Auto Volume PASCH

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Reduces the difference in volume control between broadcasters.

1) **Off**
2) **On**

SRS TS XT PASCH

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

SRS TS XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers.
It is fully compatible with all multichannel formats.

1) **Off**
2) **On**

[The direct button on the remote control is the 'SRS' button.]

Sound Select PASCH

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Selects either Main or Sub when PIP is On.

1) **Main**

2) **Sub**

[Available Modes: PIP ON]

Setup

Available Modes

P PC / BNC / DVI

A AV

S S-Video

C Component

H HDMI

Language P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]

You can choose from 11 languages.

Note

- The language chosen affects only the language of the OSD.

  It has no effect on any software running on the computer.

- English, Deutsch, Español, Français, Italiano, Svenska, 日本語, 中國語, Русский, 한국어, Português

Time P A S C H

Selects from one of 4 time settings, Clock Set, Sleep Timer, On Timer, and Off Timer.

1) **Clock Set**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [< / >] → [ENTER]
Current Time Setting.

2) **Sleep Timer**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] →[< / >] → [∧ / ∨] → [ENTER] →[< / >] → [∧ / ∨] → [ENTER]
Turns the LCD Display off automatically at certain times. (Off, 30, 60, 90, 120, 150, 180)

3) **On Timer**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >] → [∧ / ∨] → [ENTER]
Turns the LCD Display on automatically at a preset time.
Controls the mode and the volume level at the time the LCD Display turns on automatically.

4) **Off Timer**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] →[< / >] → [∧ / ∨] → [ENTER]
Turns the LCD Display off automatically at a preset time.

Note

- When selecting Yes for the On Timer or Off Timer when the Clock is not set up, a guiding message pops up: "Set the clock first.".

Menu Transparency P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

Changes the opaqueness of the OSD background.

1) **High**
2) **Medium**

3) Low
4) Opaque

Safety Lock PIN P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [0~9] → [0~9] → [0~9]

The password can be changed.

Energy Saving P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [MENU]

This feature adjusts the power consumption of the unit in order to save energy.

1) Off
2) On

Note

- If you want to reduce the standby power consumption, set Energy Saving to On. However, when Energy Saving is On, you cannot use the remote Power On function of the MDC.

HDMI Black Level H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [MENU]

When a DVD or set-top box is connected to your TV via HDMI, it may cause a degradation in the screen quality, such as an increase in the black level, a low contrast, or discoloration, etc., depending on the external device connected. In this case, adjust the screen quality of your TV by configuring the HDMI black level.

1) Normal
2) Low

Video Wall P A S C H

A Video Wall is a set of video screens connected together, so that each screen shows a part of the whole picture or where the same picture is repeated on each screen.
When the Video Wall is on, you can adjust the Video Wall screen setting.

1) Video Wall

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]
Turns Off/On the Video Wall function of the selected display Off/On.
- Off
- On

2) Format

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] →[ENTER] → [∧ / ∨] → [ENTER]
The format can be selected to see a divided screen.
- Full
  Provides a full screen without any margins.
- Natural
  Displays a natural image with the original aspect ratio intact.

3) Horizontal

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] →[ENTER] → [∧ / ∨] → [ENTER]
Sets how many parts the screen should be divided horizontally.
- **Five adjustment levels: 1, 2, 3, 4, and 5.**

4) Vertical

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] →[ENTER] → [∧ / ∨] → [ENTER]
Sets how many parts the screen should be divided vertically.

- **Five adjustment levels: 1, 2, 3, 4, and 5.**

5) **Screen Divider**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

The screen can be divided into several images.

A number of screens can be selected with a different layout when dividing.

- Select a mode in Screen Divider.
- Select a display in Display Selection.
- The selection will be set up by pressing a number in the selected mode.

Note

- When Video Wall is running, the PIP, Auto Adjustment, Image Lock, and Size functions are not available. Launching Video Wall while PIP is running, will switch PIP Off. Video Wall does not operate in MagicNet mode.

Safety Screen PASCH

The Safety Screen function is used to prevent afterimages that may appear when a still picture is displayed on the screen over a long time.

- The Screen Scroll function scrolls the screen for the specified period of time.
- This function is not available when the power is turned off.

1) **Safety Screen**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨] → [ENTER]

Determines whether to turn the Screen Scroll function Off or On.

- **Off**
- **On**

2) **Interval**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨]→ [ENTER] →[∧ / ∨] → [ENTER]

Determines the time interval to run the Screen Scroll operation. (1~10 Hour)

The time is calculated on the basis of the power on time.

By default, the time is set to 10 hours.

- **1~10 Hour**

3) **Second**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨]→ [ENTER] → [∧ / ∨] → [ENTER]

Determines the time period to run the Screen Scroll operation. (1~5 Second)

By default, the time is set to 5 seconds.

- **Type-Scroll : 1~5 Second**
- **Type-Pixel, Bar, Eraser : 10~50 Second**

4) **Type**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER]

You can change the Safety Screen Type.

- **Scroll**
- **Pixel**
- **Bar**
- **Eraser**

Resolution Select P

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨]→ [ENTER]

When the picture is not displayed properly on the screen when setting the graphics card resolution of the computer to 1024 x 768 @ 60Hz, 1280 x 768 @ 60Hz, 1360 x 768@ 60Hz or 1366 x768 @ 60Hz, by using this function(Resolution Select), you can have the picture displayed on the screen in the specified resolution.

Available in PC/BNC mode only

1) **Off**
2) **1024 X 768**
3) **1280 X 768**
4) **1360 x 768**

5) 1366 X 768

Note

- Selecting the menu is only allowed when the graphics resolution is set to 1024 x 768 @ 60Hz, 1280 x 768 @ 60Hz, 1360 x 768@ 60Hz or 1366 x768 @ 60Hz.

Lamp Control P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [< / >] → [ENTER]

Adjusts the inverter lamp in order to reduce energy consumption.

Note

- This function does not operate when Dynamic Contrast is set to On in AV, S-Video, and Component modes.

Power On Adjustment P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [∧ / ∨]→ [ENTER]

Adjusts the Power On time for the screen.
***Caution: Set the Power On time to be loger to avoid overvoltage.**

FAN P A S C H

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨]→ [ENTER]

Adjusts the FAN.

1) **Normal**
2) **Pivot**

Note

- When pivoting your monitor, make sure to select PIVOT for the FAN.

Reset

The picture parameters are replaced with the factory default values.
For the DVI source, the Reset function is only available when PC DVI is being used.

1) **Image Reset** P

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [< / >]→ [ENTER]
Available in PC/BNC mode only

2) **Color Reset** P

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [< / >]→ [ENTER]
Available in PC/BNC mode only

Note

- The Reset function is not available when Video Wall is On.

Multi Control

Available Modes

P PC / BNC / DVI

A AV

S-Video

Component

HDMI

Multi Control

Assigns an individual ID to the SET.

1) **ID Setup**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [0~9]

Assigns distinctive IDs to the SET.

2) **ID Input**

[MENU] → [∧ / ∨] → [ENTER] → [∧ / ∨] → [ENTER] → [ENTER] → [0~9]

Use to select the transmitter functions of the individual SET. Only a SET where the ID corresponds to the transmitter setting becomes activated.

Direct Functions

Available Modes

PC / BNC / DVI

AV

S-Video

Component

HDMI

MDC PASCH

Moves to the Multi Control OSD screen.

LOCK PASCH

Sets the Safety Lock function.

1) **Lock On**

It will be locked.

2) **Lock Off**

It will be unlocked.

Note

- When setting the Lock function, you can only operate the power and lock buttons on the remote control and set.

  The preset password on the LCD Display is "0000".

Note

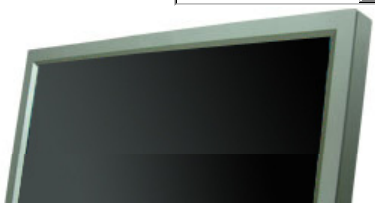
- Resetting the password for the function key lock.
  Press MUTE → 1 → 8 → 6 → On. The password will be reset to '0000'. The remote control is required for resetting the password.

© 1995~2007 SAMSUNG. ALL Rights Reserved

Safety Instructions
Introduction
Connections
Using the Software
Adjusting the LCD Display
Troubleshooting
Self-Test Feature Check
Check List
Q & A
Specifications
Information
Appendix

Model

SyncMaster



www.samsung.com

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Troubleshooting

Self-Test Feature Check

☑ Note

- Check the following items yourself before calling for assistance. Contact a Service Center for problems that you cannot solve by yourself.

Self-Test Feature Check

Your LCD Display provides a self test feature that allows you to check whether your LCD Display is functioning properly.

1) Turn off both your computer and the LCD Display.

2) Unplug the video cable from the back of the computer.

3) Turn on the LCD Display.

The figure shown below ("Check Signal Cable") appears on a black background when the LCD Display is working normally even though no video signal is detected: While in the Self-Test mode, the LED power indicator remains green and the figure moves around on the screen.

4) Turn off your LCD Display and reconnect the video cable; then turn on both your computer and the LCD Display

If your LCD Display screen remains blank after using the previous procedure, check your video controller and computer system; **your LCD Display is functioning properly.**

Not Optimum Mode

You can even view the screen at a resolution of 1360 x 768. However, you will receive the following message for a minute; You can choose to change the screen resolution or stay in the current mode during that time. And if the resolution is more than 85Hz, you will see the black screen because the LCD Display does not support over 85Hz.

☑ Note

- Refer to Specifications > Preset Timing Modes for the resolutions or frequencies supported by the LCD Display.

Maintenance and Cleaning

1) Maintaining the LCD Display Case.
Clean with a soft cloth after disconnecting the power cord.

- Do not use benzene, thinner or other flammable substances, or a wet cloth.
- We recommend that a Samsung cleansing agent is used to prevent damage to the screen.

2) Maintaining the Flat Panel Display Screen.
Clean with a soft cloth (cotton flannel) smoothly.

- Never use acetone, benzene or thinner.
(They may cause flaws or deformation of the screen surface.)
- The user will be required to pay costs and related expenses for repairing damages caused.

Symptoms and Recommended Actions

☑ Note

- A LCD Display recreates visual signals received from the computer. Therefore, if there is a problem with the computer or the video card, this can cause the LCD Display to become blank, have poor coloring, become noisy, and video mode not supported, etc. In this case, first check the source of the problem, and then contact a Service Center or your dealer.

1) Check if the power cord and the video cables are properly connected to the computer.
2) Check if the computer beeps more than 3 times when booting.
(If it does, request an a service for the main board of the computer.)
3) If you installed a new video card or if you assembled the PC, check if you installed the Adaptor(video).
4) Check if the scanning ratio of the video screen is set to between 50 Hz ~ 85 Hz.
(Do not exceed 60Hz when using the maximum resolution.)
5) If you have problems in installing the Adaptor (video) driver, boot the computer in Safe Mode, remove the Display Adaptor in the "Control Panel, System, Device Administrator" and then reboot the computer to reinstall the Adaptor (video) driver.

Check List

☑ Note

- The following table lists possible problems and their solutions. Before calling for assistance, check the information in this section to see if you can remedy any problems for yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.

Problems related to the Installation (PC Mode)

☑ Note

- Problems related to the LCD Display installation and their solutions are listed.

Problems	Solutions
The LCD Display screen flickers.	• Check if the signal cable between the computer and the LCD Display is securely connected.

(Refer to Connecting a Computer)

Problems related to the Screen

☑ Note

- Problems related to the LCD Display screen and their solutions are listed.

Problems	Solutions
The screen is blank and the power indicator is off.	• Ensure that the power cord is firmly connected and the LCD LCD Display is on. (Refer to the Connecting the LCD Display)
"Check Signal Cable" message.	• Ensure that the signal cable is firmly connected to the PC or video sources. (Refer to the Connecting the LCD Display) • Ensure that the PC or video sources are turned on.
"Not Optimum Mode " message.	• Check the maximum resolution and the frequency of the video Adaptor. • Compare these values with the data in the Preset Timing Modes Chart.
The picture rolls vertically.	• Check if the signal cable is securely connected. Re-connect it, if necessary. (Refer to Connecting a Computer)
The image is not clear; picture is blurred.	• Run Frequency Coarse and Fine tuning. • Turn on again after removing all accessories (video extension cable, etc.) • Set the resolution and frequency to the recommended ranges.
The picture image is unstable and shakes. **Ghost images are shown in the picture.**	• Check if the resolution and frequency set for the computer video card falls in the range supported by the LCD Display. If not, reset them referring to the current Information under the LCD Display menu and Preset Timing Modes.
The image is too light or too dark.	• Adjusts the brightness and contrast. (Refer to the Brightness, Contrast)
The screen color is inconsistent. **The color image is distorted by dark shadows.** **The color white is poor.**	• Adjust color using Custom under OSD Color Adjustment menu.
The power Indicator blinks green.	• The LCD Display is currently saving the changes made to the settings to the OSD memory.
The screen is blank and the power indicator light is steady green or blinks every 0.5 or 1 seconds.	• The LCD Display is using its power management system. • Press a key on the keyboard.
The screen is blank and it is blinking.	• If you see the "TEST GOOD" message on the screen when you pressing the MENU button, check the cable connection between the LCD Display and the computer to ensure that the connector is properly connected.

Problems related to Audio

☑ Note

- Problems related to audio signals and their solutions are listed below.

Problems	Solutions
No sound.	• Ensure that the audio cable is firmly connected to both the audio-in port on your LCD Display and the audio-out port on your sound card. (Refer to the Connecting the LCD Display) • Check the volume level.
The sound level is too low.	• Check the volume level. • If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.
The sound is too high or too low.	• Adjusts the Treble and Bass to the appropriate levels.

Problems related to the Remote Control

☑ Note

- Problems related to the remote control and their solutions are listed.

Problems	Solutions
The remote control buttons do not respond.	• Check the polarities (+/-) of the batteries. • Check if the batteries are empty. • Check if the power is on. • Check if the power cord is securely connected. • Check if a special fluorescent or neon lamp is on in the vicinity.

Q & A

Question	Answer
How can I change the frequency?	The frequency can be changed by reconfiguring the video card. Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)
How can I Adjusts the resolution?	• Windows XP: Set the resolution in the Control Panel → Appearance and Themes → Display → Settings. • Windows ME/2000: Set the resolution in the Control Panel → Display → Settings. * Contact the video card manufacturer for details.
How can I set the Power Saving function?	• Windows XP: Set the resolution in the Control Panel → Appearance and Themes → Display → Screen Saver. Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual). • Windows ME/2000: Set the resolution at the Control Panel → Display → Screen Saver. Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).
How can I clean the outer case/LCD Panel?	Disconnect the power cord and then clean the LCD Display with a soft cloth, using either a cleaning solution or plain water. Do not leave any detergent or scratches on the case. Do not let any water enter the LCD Display.

© 1995~2007 SAMSUNG. ALL Rights Reserved

Safety Instructions
Introduction
Connections
Using the Software
Adjusting the Monitor
Troubleshooting
Specifications
General
PowerSaver
Preset Timing Modes
Information
Appendix

Model
SyncMaster 400DX

SyncMaster

www.samsung.com

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Specifications

General

General

General

Model Name	SyncMaster 400DX

LCD Panel

Size	40 " Diagonal (101 cm)
Display area	885.168 mm(H) x 497.664 mm(V)
Pixel Pitch	0.648 mm (H) x 0.648 mm (V)

Synchronization

Horizontal	30 ~ 81 kHz
Vertical	56 ~ 85 Hz

Display Color

Display Color	16.7 M

Resolution

Optimum resolution	1360 x 768 @ 60 Hz
Maximum resolution	1360 x 768 @ 60 Hz

Input Signal, Terminated

RGB Analog, DVI Compliant Digital RGB
0.7 Vp-p ± 5 %
separate H/V sync, Composite, SOG(Option)
TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V)

Maximum Pixel Clock

140 MHz

Power Supply

AC 100 - 240 V~ (+/- 10 %), 50/60 Hz

Signal Cable

15pin to 15pin D-sub cable, Detachable
DVI-D to DVI-D connector, Detachable (Sold separately)

Dimensions (WxHxD)/ Weight

1132.0 x 604.0 x 311.0 mm / 44.6 x 23.8 x 12.2 inch (With Speaker & With Stand)
932.0 x 548.0 x 130.0 mm / 36.7 x 21.6 x 5.1 inch (Without Speaker)
932.0 x 604.0 x 311.0 mm / 36.7 x 23.8 x 12.2 inch, 25.0 kg / 55.1 lbs(With Stand)
932.0 x 604.0 x 317.0 mm / 36.7 x 23.8 x 12.5 inch, 28.5 kg / 62.8 lbs(With Glass & With Stand)

VESA Mounting Interface

600 mm x 400 mm

Environmental considerations

Operating	Temperature: 50°F ~ 104°F (10°C ~ 40°C) Humidity: 10 % ~ 80 %, non-condensing
Storage	Temperature: -4°F ~ 113°F (-20°C ~ 45°C) Humidity: 5 % ~ 95 %, non-condensing

Audio Characteristics

Audio Input 1	RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB)

Audio Input 2	RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB)
PC Audio Input	3.5 Ø Stereo Jack, 0.5 Vrms (-9 dB)
Frequency	RF: 80 Hz ~ 15 kHz (at -3 dB)
Response	A/V: 80 Hz ~ 20 kHz (at -3 dB)

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. The interaction of the monitor and the computer systems will provide the best operating conditions and monitor settings. In most cases, the monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT LCD panels manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above are used for this product. But the pixels of RED, GREEN, BLUE and WHITE color appear to be bright sometimes or some black pixels may be seen. This is not from bad quality and you can use it without any problelms.

• For example, the number of TFT LCD sub pixels contained in this product are 3,133,440.

Note

- Design and specifications are subject to change without prior notice.

Class B Equipment (Information Communication equipment for residential use)

- This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas. (Class B equipment emits less electromagnetic waves than Class A equipment.)

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor to low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPM compliant video card installed in your computer. Use the software utility installed on your computer to set up this feature.

PowerSaver

State	Normal Operation	Power saving mode	Power off
Power Indicator	Green	Green, Blinking	Amber
Power Consumption	Less than 220 W	Less than 1 W (Off-mode)	Less than 1 W (Power button)

Preset Timing Modes

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and Adjusts the screen as follows.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)

IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA,1360 x 768	47.712	60.015	85.500	+/+

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle and the inverse number of the Horizontal Cycle is called the Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called the Vertical Frequency or Refresh Rate. Unit: Hz

© 1995~2007 SAMSUNG. ALL Rights Reserved

Safety Instructions
Introduction
Connections
Using the Software
Adjusting the Monitor
Troubleshooting
Specifications
General
PowerSaver
Preset Timing Modes
Information
Appendix

Model
SyncMaster 460DX

SyncMaster

www.samsung.com

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Specifications

General

General

General

Model Name	SyncMaster 460DX

LCD Panel

Size	46" Diagonal (116 cm)
Display area	1018.353 mm (H) x 572.544 mm (V)
Pixel Pitch	0.7455 mm (H) x 0.7455 mm (W)

Synchronization

Horizontal	30 ~ 81 kHz
Vertical	56 ~ 85 Hz

Display Color

Display Color	16.7 M

Resolution

Optimum resolution	1360 x 768 @ 60 Hz
Maximum resolution	1360 x 768 @ 60 Hz

Input Signal, Terminated

RGB Analog, DVI Compliant Digital RGB
0.7 Vp-p ± 5 %
separate H/V sync, Composite, SOG(Option)
TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V)

Maximum Pixel Clock

140 MHz (Analog, Digital)

Power Supply

AC 100 - 240 V~ (+/- 10 %), 50/60 Hz

Signal Cable

15pin to 15pin D-sub cable, Detachable
DVI-D to DVI-D connector, Detachable (Sold separately)

Dimensions (WxHxD)/ Weight

1268.0 x 681.0 x 311.0 mm / 49.9 x 26.8 x 12.2 inch (With Speaker & With Stand)
1068.0 x 624.0 x 130.0 mm / 42.0 x 24.6 x 5.1 inch (Without Speaker)
1068.0 x 681.0 x 311.0 mm / 42.0 x 26.8 x 12.2 inch / 31.30 Kg / 69.0 lbs(With Stand)
1068.0 x 681.0 x 317.0 mm / 42.0 x 26.8 x 12.5 inch, 35.70 Kg / 78.7 lbs(With Glass & With Stand)

VESA Mounting Interface

600 mm x 400 mm

Environmental considerations

Operating	Temperature: 50°F ~ 104°F (10°C ~ 40°C) Humidity: 10 % ~ 80 %, non-condensing
Storage	Temperature: -4°F ~ 113°F (-20°C ~ 45°C) Humidity: 5 % ~ 95 %, non-condensing

Audio Characteristics

Audio Input 1	RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB)

Audio Input 2	RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB)
PC Audio Input	3.5 Ø Stereo Jack, 0.5 Vrms (-9 dB)
Frequency	RF: 80 Hz ~ 15 kHz (at -3 dB)
Response	A/V: 80 Hz ~ 20 kHz (at -3 dB)

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. The interaction of the monitor and the computer systems will provide the best operating conditions and monitor settings. In most cases, the monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT LCD panels manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above are used for this product. But the pixels of RED, GREEN, BLUE and WHITE color appear to be bright sometimes or some black pixels may be seen. This is not from bad quality and you can use it without any problelms.

• For example, the number of TFT LCD sub pixels contained in this product are 3,133,440.

Note

- Design and specifications are subject to change without prior notice.

Class B Equipment (Information Communication equipment for residential use)

- This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas. (Class B equipment emits less electromagnetic waves than Class A equipment.)

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor to low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPM compliant video card installed in your computer. Use the software utility installed on your computer to set up this feature.

PowerSaver (When used as a normal monitor)

State	Normal Operation	Power saving mode	Power off
Power Indicator	Green	Green, Blinking	Amber
Power Consumption	Less than 270 W	Less than 1 W (Off-mode)	Less than 1 W (Power button)

Preset Timing Modes

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and Adjusts the screen as follows.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)

IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA,1360 x 768	47.712	60.015	85.500	+/+

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle and the inverse number of the Horizontal Cycle is called the Horizontal Frequency. Unit: kHz

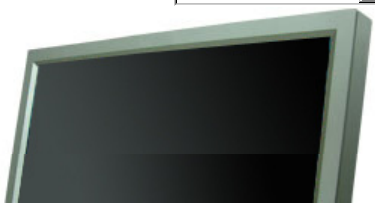
Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called the Vertical Frequency or Refresh Rate. Unit: Hz

© 1995~2007 SAMSUNG. ALL Rights Reserved

Model

SyncMaster



www.samsung.com

Safety Instructions
Introduction
Connections
Using the Software
Adjusting the LCD Display
Troubleshooting
Specifications
Information
For Better Display
PRODUCT INFORMATION (Image Retention Free)
Appendix

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Information

For Better Display

- Adjust the computer resolution and screen inection rate (refresh rate) on the computer as described below to enjoy the best picture quality. You can have an uneven picture quality on screen if the best picture quality is not provided for TFT-LCD.
  - Resolution: 1360 x 768
  - Vertical frequency (refresh rate): 60 Hz

- TFT LCD panels manufactured by using advanced semiconductor technology with a precision of 1ppm (one millionth) and above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without any problems.
  - For example, the number of TFT LCD sub pixels contained in this product are 3,133,440.

- When cleaning the monitor and the panel outside, please apply the recommended small amount of cleaner by using a soft cloth to polish. Do not force the LCD area but rub softly.
  If excessive force is applied, you may stain it.

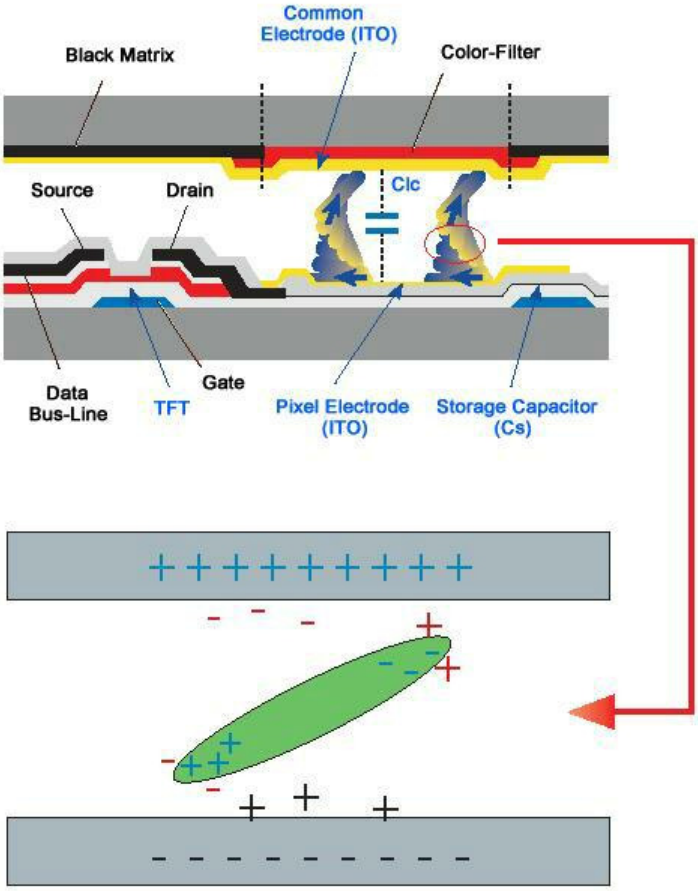
- If you are not satisfied with the picture quality, you can get better quality of picture by performing the "auto adjustment function" in display screen that is appeared as window termination button is pressed.
  If there's still noise after the automatic adjustment, use the FINE/COARSE adjustment function.

- When viewing a fixed screen for an extended period of time, a residual image or blurriness may appear. Change the mode to energy save or set a screensaver to move the picture when you need to be away from the LCD Display for an extended period of time.

PRODUCT INFORMATION (Image Retention Free)

- **What is Image Retention ?**

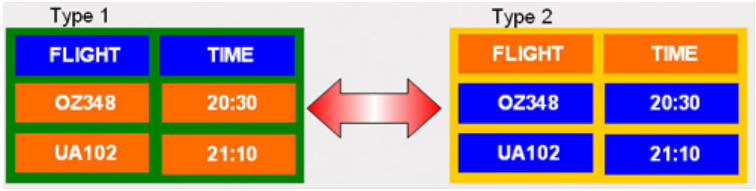
  Image retention may not occur when a LCD panel is operated under normal conditions.
  Normal conditions are defined as continuously changing video patterns. When the LCD panel is operated for a long time with a fixed pattern (over 12 hours), there may be slight difference in voltage between electrodes that work the liquid crystal (LC) in a pixel. The voltage difference between electrodes increases with time, forcing the liquid crystal to lean. When this occurs, the previous image may be seen when the pattern is changed. To prevent this, the accumulated voltage difference must be decreased.



Power Off, Screen Saver, or Power Save Mode

- Turn the power off for 4 hours after 20 hours in use
- Turn the power off for 2 hours after 12 hours in use
- Set the Monitor to power off with the PC Display Properties Power Scheme.
- Use a Screen saver if possible - Screen saver in one color or a moving image is recommended.

Change the Color Information periodically



☑ Note

- Use Two different colors
  Rotate the Color Information with 2 different colors every 30 minutes.

- Avoid using a combination of characters and background color with large difference in luminance.
  Avoid using Grey colors, which can cause Image retention easily.
  Avoid: Colors with big difference in luminance (Black & White, Grey)

Change the characters color periodically

- Use Bright colors with little difference in luminance
  - Cycle : Change the characters color and background color every 30 minutes

- Every 30 minutes, change the characters with movement.

- All area display Moving image together with Logo periodically.
  - Cycle: Display moving image together with Logo for 60 seconds after 4 hours in use.

- The best way to protect your monitor from Image retention is to turn Power off, or set your PC, or System to operate a Screen Saver program when you are not using it. Also Warranty service will be limited based on instruction guide.

Apply the Screen Scroll function on Product

- Apply the Screen Scroll function
  - Symptom: Horizontal Bar with Black Color move up and down.

  - Select method
  . Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Screen Scroll
  . Time Interval : 1 ~ 10 hours (Recommend : 1)
  . Time Period : 1 ~ 5 second (Recommend : 5)

☑ Note

- (Please check CD's User Guide at "OSD Function", some model's will not available)

Apply the Screen Pixel function on Product

- Apply the Screen Pixel function
  - Symptom: Dot with Black Color move up and down.

  - Select method
  . Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Pixel
  . Time Interval : 1 ~ 10 hours (Recommend : 1)
  . Time Period : 10 ~ 50 second (Recommend : 50)

- Apply the Screen Bar function
  - Symptom: Horizontal / Vertical Bar with Black Color move up and down.

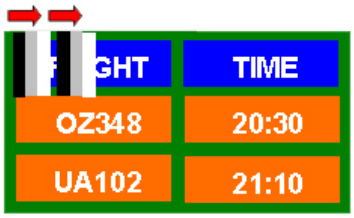
- Select method
. Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Bar
. Time Interval : 1 ~ 10 hours (Recommend : 1)
. Time Period : 10 ~ 50 second (Recommend : 50)

☑ Note

- (Please check CD's User Guide at "OSD Function", some model's will not available.)

Apply the Screen Erasing function on Product

- Apply the Screen Erasing function
- Symptom: 2 Vertical blocks move with erasing the display



- Select method
. Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Eraser
. Time Interval : 1 ~ 10 hours (Recommend : 1)
. Time Period : 10 ~ 50 second (Recommend : 50)

☑ Note

- (Please check CD's User Guide at "OSD Function", some model's will not available)

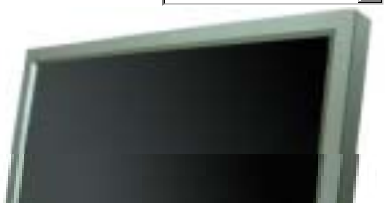
© 1995~2007 SAMSUNG. ALL Rights Reserved

Safety Instructions
Introduction
Connections
Using the Software
Adjusting the LCD Display
Troubleshooting
Specifications
Information
Appendix
Contact SAMSUNG WORLDWIDE
Terms
Correct Disposal
Authority

Model

SyncMaster

www.samsung.com



The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Appendix

Contact SAMSUNG WORLDWIDE

Note

- If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

North America

U.S.A	1-800-SAMSUNG(726-7864)	http://www.samsung.com/us
CANADA	1-800-SAMSUNG(726-7864)	http://www.samsung.com/ca
MEXICO	01-800-SAMSUNG(726-7864)	http://www.samsung.com/mx

Latin America

ARGENTINE	0800-333-3733	http://www.samsung.com/ar
BRAZIL	0800-124-421 4004-0000	http://www.samsung.com/br
CHILE	800-SAMSUNG(726-7864)	http://www.samsung.com/cl
COLOMBIA	01-8000112112	http://www.samsung.com.co
COSTA RICA	0-800-507-7267	http://www.samsung.com/latin
ECUADOR	1-800-10-7267	http://www.samsung.com/latin
EL SALVADOR	800-6225	http://www.samsung.com/latin
GUATEMALA	1-800-299-0013	http://www.samsung.com/latin
JAMAICA	1-800-234-7267	http://www.samsung.com/latin
PANAMA	800-7267	http://www.samsung.com/latin
PUERTO RICO	1-800-682-3180	http://www.samsung.com/latin
REP. DOMINICA	1-800-751-2676	http://www.samsung.com/latin
TRINIDAD & TOBAGO	1-800-SAMSUNG(726-7864)	http://www.samsung.com/latin
VENEZUELA	0-800-100-5303	http://www.samsung.com/latin

Europe

AUSTRIA	0800-SAMSUNG(726-7864)	http://www.samsung.com/at
BELGIUM	0032 (0)2 201 24 18	http://www.samsung.com/be
	844 000 844	http://www.samsung.com/cz

CZECH REPUBLIC	Distributor pro Českou republiku: Samsung Zrt., česka organizační složka Vyskočilova 4, 14000 Praha 4	
DENMARK	70 70 19 70	http://www.samsung.com/dk
FINLAND	030-6227 515	http://www.samsung.com/fi
FRANCE	3260 SAMSUNG(726-7864) 08 25 08 65 65 (€ 0,15/min)	http://www.samsung.com/fr
GERMANY	01805-SAMSUNG(726-7864) (€ 0,14/Min)	http://www.samsung.de
HUNGARY	06-80-SAMSUNG(726-7864)	http://www.samsung.com/hu
ITALIA	800-SAMSUNG(726-7864)	http://www.samsung.com/it
LUXEMBURG	0035 (0)2 261 03 710	http://www.samsung.com/be
NETHERLANDS	0900 SAMSUNG(726-7864) (€ 0,10/Min)	http://www.samsung.com/nl
NORWAY	815-56 480	http://www.samsung.com/no
POLAND	0 801 801 881 022-607-93-33	http://www.samsung.com/pl
PORTUGAL	80 8 200 128	http://www.samsung.com/pt
REPUBLIC OF IRELAND	0818 717 100	http://www.samsung.com/ie
SLOVAKIA	0800-SAMSUNG(726-7864)	http://www.samsung.com/sk
SPAIN	902 10 11 30	http://www.samsung.com/es
SWEDEN	0771-400 200	http://www.samsung.com/se
SWITZERLAND	0800-SAMSUNG(726-7864)	http://www.samsung.com/ch
U.K	0870-SAMSUNG(726-7864)	http://www.samsung.com/uk

CIS

ESTONIA	800-7267	http://www.samsung.ee
LATVIA	800-7267	http://www.samsung.com/lv
LITHUANIA	8-800-77777	http://www.samsung.lt
KAZAKHSTAN	8-10-800-500-55-500	http://www.samsung.kz
KYRGYZSTAN	00-800-500-55-500	
RUSSIA	8-800-555-55-55	http://www.samsung.ru
UKRAINE	8-800-502-0000	http://www.samsung.ua
UZBEKISTAN	8-800-120-0-400	http://www.samsung.uz

Asia Pacific

AUSTRALIA	1300 362 603	http://www.samsung.com/au
CHINA	800-810-5858, 010- 6475 1880	http://www.samsung.com.cn
HONG KONG	3698-4698	http://www.samsung.com/hk
INDIA	3030 8282, 1800 110011	http://www.samsung.com/in/
INDONESIA	0800-112-8888	http://www.samsung.com/id
JAPAN	0120-327-527	http://www.samsung.com/jp
MALAYSIA	1800-88-9999	http://www.samsung.com/my
NEW ZEALAND	0800SAMSUNG(726-7864)	http://www.samsung.com/nz
PHILIPPINES	1800-10-SAMSUNG(726-7864)	http://www.samsung.com/ph
SINGAPORE	1800-SAMSUNG(726-7864)	http://www.samsung.com/sg

THAILAND	1800-29-3232, 02-689-3232	http://www.samsung.com/th
TAIWAN	0800-329-999	http://www.samsung.com/tw
VIETNAM	1 800 588 889	http://www.samsung.com/vn

Middle East & Africa

SOUTH AFRICA	0860-SAMSUNG(726-7864)	http://www.samsung.com/za
TURKEY	444 77 11	http://www.samsung.com.tr
U.A.E	800-SAMSUNG (726-7864) 8000-4726	http://www.samsung.com/mea

Terms

Sync Signal

Sync (Synchronized) Signals refer to the standard signals that are required to display desired colors on the LCD Display. They are divided into Vertical and Horizontal Sync Signals. These signals display normal color images by the set resolution and frequency.

Types of Sync Signals

Separate	This is a scheme of transmitting individual vertical sync signals to the LCD Display.
Composite	This is a scheme of combining vertical sync signals into one composite signal and transmitting it to the LCD Display. The LCD Display displays the color signals by separating the composite signal into original color signals.

Dot Pitch

The image on a LCD Display is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

Vertical Frequency

The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called the Vertical Frequency or Refresh Rate. Unit: Hz

Example:	If the same light repeats itself 60 times per second, this is regarded as 60 Hz.

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Interlace and Non-Interlace Methods

Showing the horizontal lines of the screen from the top to the bottom sequentially is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of LCD Display s to ensure a clear image. The Interlace method is the same as that used in TVs.

Plug & Play

This is a function that provides the best quality screen for the user by allowing the computer and the LCD Display to exchange information automatically. This LCD Display follows the international standard VESA DDC for the Plug & Play function.

Resolution

The number of horizontal and vertical dots used to compose the screen image is called the 'resolution'. This number shows the accuracy of the display. A high resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example:	If the resolution is 1360 x 768, this means the screen is composed of 1360 horizontal dots (horizontal resolution) and 768 vertical lines (vertical resolution).

Multiple Display Control (MDC)

A Multiple Display Control (MDC) is an application allowing various displays to be easily and simultaneously operated on a PC. RS-232C, a standard of serial communication, is used for communicating between a PC and a display.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment) - Europe only

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household waste at the end of its working life. To prevent possible harm to the environment or damage to health from uncontrolled waste disposal, please separate this from other types of waste and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Authority

Information in this document is subject to change without notice.
© 2007 Samsung Electronics Co., Ltd. All rights reserved.

Reproduction in any manner whatsoever without the written permission of Samsung Electronics Co., Ltd. is strictly forbidden.

Samsung Electronics Co., Ltd. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Samsung is the registered trademark of Samsung Electronics Co., Ltd.; Microsoft , Windows and Windows NT are registered trademarks of Microsoft Corporation; VESA , DPM and DDC are registered trademarks of Video Electronics Standard Association; the ENERGY STAR ® name and logo are registered trademarks of the U.S. Environmental Protection Agency (EPA).
All other product
names mentioned herein may be the trademarks or registered trademarks of their respective owners.

SRS(●) TruSurround XT, SRS and (●) Symbol are trademarks of SRS Labs, Inc.
TruSurround XT technology is incorporated under license from SRS Labs, Inc.

CALIFORNIA USA ONLY (Applicable for networking models only.)

This Perchlorate warning applies only to primary CR(Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA

"Perchlorate Material - special handling may apply,
See www.dtsc.ca.gov/hazardouswaste/perchlorate."

© 1995~2007 SAMSUNG. ALL Rights Reserved